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Alabama
Health Board
SPB

TRANSACTIONS

OF THE

MEDICAL ASSOCIATION

OF THE

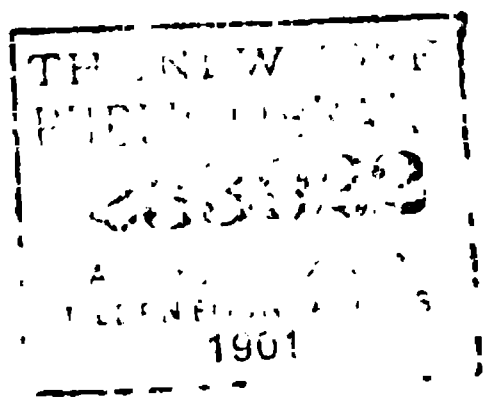
STATE OF ALABAMA.

(THE STATE BOARD OF HEALTH.)

ORGANIZED 1847—MEETING OF 1901.

SELMA, APRIL 16-19.

MONTGOMERY, ALABAMA
THE BROWN PRINTING COMPANY, PRINTERS AND BINDERS
1901


1901

THE MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

PROGRAMME OF THE ANNUAL SESSION,

APRIL 16-19, 1901

Y. M. C. A. HALL, SELMA, ALA.

COMMITTEE OF ARRANGEMENTS.

SAMUEL G. GAY, M. D., Chairman.

JOHN P. FURNISS, M. D. CLEMENT RITTER, M. D.

FIRST DAY—TUESDAY, APRIL 16.

MORNING SESSION.

1. Call to order at 12 M. by the President—RUSSELL MCWHORTER CUNNINGHAM, M. D., Ensley.
2. Prayer—A. J. DICKINSON, D. D.
3. Address of Welcome—W. McL. PITTS, M. D., President Dallas County Medical Society.
4. Address of Welcome—Hon. A. L. MCLEOD, Mayor of Selma.
5. Annual Message of the President—R. M. CUNNINGHAM, M. D., Ensley.
6. Report of Senior Vice-President—SAMUEL G. GAY, M. D., Selma.
7. Report of Junior Vice-President—WILLIAM T. PRIDE, M. D., Madison.
8. Report of the Secretary—G. P. WALLER, M. D., Montgomery.
9. Report of the Treasurer—H. G. PERRY, M. D., Greensboro.
10. Report of the Publishing Committee.
11. Report of Special Committees.
12. Miscellaneous Business.

    Adjournment.

Evening Session.

1. Call to order at 8 p. m.
2. Historian's Address—Jesse Gray Palmer, M. D., Opelika.

REGULAR REPORTS.

3. The Future Outlook of Medicine is Toward Prevention—R. C. Bankston, M. D., Birmingham.
4. Pernicious Vomiting in Pregnancy—M. B. Cameron, M. D., Sumterville.
5. The Therapeutic Uses of Water—A. M. Stovall, M. D., Jasper.
6. Ovarian Cysts—R. S. Hill, M. D., Montgomery.

Adjournment.

SECOND DAY—WEDNESDAY, APRIL 17.

1. Call to order at 9 A. M.
2. Unfinished Business.

CONTINUATION OF REGULAR REPORTS.

3. The Pathology and Treatment of Retro-Uterine Displacements—J. A. Goggans, M. D., Alexander City.
4. Endometritis, its Treatment in the Home, with Report of Cases—C. S. Chenault, M. D., Mt. Hope.
5. Reflex Neuroses in Women—E. B. Ward, M. D., Selma.

11 A. M.—SPECIAL ORDER.

6. Jerome Cochran Lecture—William Osler M. D., L. L. D., Baltimore, Md.
7. Acute Entero-Colitis in Infancy—L. W. Johnston, M. D., Tuskegee.
8. Pathological Conditions Causing Abortion and Premature Labor, with Reports of Cases—F. A. Webb, M. D., Calvert.
9. Moral and Legal Responsibility in Paranoia and other Abnormal Mental States—W. G. Somerville, M. D., Tuscaloosa.
10. Mortality in our Prison Population—Judson Davie, M. D., Cowikee.
11. The Prevention of Infectious Diseases—T. A. Casey, M. D., Albertville.

Adjournment.

Afternoon Session.

1. Call to order at 3 p. m.

CONTINUATION OF REGULAR REPORTS.

2. What is the best Closure and Dressing in Aseptic Cases?—Goldsby King, M. D., Selma.
3. The Microscope in the Hands of the General Practitioner—G. Heustis Fonde, M. D., Mobile.
4. Peculiar Forms of Malaria—H. T. Inge, M. D., Mobile.
5. Hydrocephalus; Its most Logical Theory, and the Operation Based on Same—H. M. Hunter, M. D., Union Springs.
6. The Diseases of the Tennessee Valley—M. W. Murray, M. D., New Decatur.
7. Climatic Effects in Talladega County on Diseases Common in Alabama—S. W. Welch, M. D., Talladega.

Adjournment.

Evening Session.

1. Call to order at 8 P. M., Opera House.
2. Monitor's Address—W. E. B. Davis, M. D., Birmingham.
3. Annual Oration—W. G. Harrison, M. D., Talladega.

Adjournment.

Followed by a luncheon at Hotel Albert, tendered by Dallas County Medical Society.

THIRD DAY—THURSDAY, APRIL 18.

1. Call to order at 9 A. M.
2. Unfinished Business.

VOLUNTEER PAPERS.

3. The Widal Reaction in Typhoid Fever—Edgar A. Jones, M. D., Birmingham.
4. Anæsthesia and Anæsthetics—S. A. Billing, M. D., Montgomery.
5. The Medical Profession in Politics—J. C. LeGrand, M. D., Birmingham.
6. Medical and Forensic Importance of Reflexes— W. T. Eckley, M. D., Chicago, Ill.
7. Axis Traction Forceps—J. P. Furniss, M. D., Selma.

Adjournment.

Afternoon Session.

1. Call to order at 3 P. M.
2. Unfinished Business.

CONTINUATION OF VOLUNTEER PAPERS.

3. Pathology of Burns—G. S. Brown, M. D., Birmingham.

4. Intra-Venous Saline Infusion—J. M. MASON, M. D., Birmingham.
5. The Pronated Foot—MICHAEL HOKE, M. D., Atlanta, Ga.
6. Pneumonia; Its Occurrence in Pregnant Women; With Reports of Four Cases—J. H. EDWARDS, M. D., Wylam.
7. Neglected Therapeutic Measures—W. H. SANDERS, M. D., Mobile.
8. Miscellaneous Business.

Adjournment.

EVENING SESSION.

1. Call to order at 8 P. M.

CONTINUATION OF VOLUNTEER PAPERS.

2. Some remarks on the Administration of Anæsthetics—B. B. ROGAN, M. D., Selma.
3. Cocaine Anæsthesia by Lumbar Puncture—S. G. GAY, M. D., Selma.
4. Nephrolithiasis—U. J. W. PETERS, M. D., Birmingham.
5. Influenza—W. W. HARPER, M. D., Selma.

Adjournment.

FOURTH DAY—APRIL 19.

1. Call to order at 9 A. M.
2. Unfinished and Miscellaneous Business.
3. Report of Board of Censors.
4. Revision of the Four Rolls.
   (a.) Revision of the Roll of County Societies.
   (b.) Revision of the Roll of Counsellors.
   (c.) Revision of the Roll of Correspondents.
   (d.) Revision of the Roll of Officers.
5. Election and Installation of Officers.
6. Unfinished and Miscellaneous Business.
7. Adjournment *sine die*.

THE MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

THE MINUTES OF THE MEETING OF 1901.

PROCEEDINGS OF THE FIRST DAY.

SELMA, TUESDAY, April 16th.

The Association was called to order at 12 M. in the hall of the Young Mens' Christian Association by the President, Dr. R. M. Cunningham, of Ensley.

Invocation by Rev. A. J. Dickinson, D. D., of Selma.

President Cunningham then introduced Dr. W. W. Harper, of Selma, who delivered the following address of welcome:

Mr. President and Gentlemen of the Medical Association of the State of Alabama:

Today I feel very much like a man who has married a widow and is being constantly reminded of the superior virtues of the late lamented, for, by reference to the programme of exercises it will be seen that this address was to have been delivered by Dr. Pitts, President of the Dallas County Medical Society. The doctor left for a visit to Europe several days ago, and before leaving transferred to me the pleasure and honor of extending to you all, on behalf of the Dallas County Medical Society, a hearty welcome.

In this country there is a very delightful custom of holding family re-unions. From different parts of the land the children come to the family hearthstone, and the old home rings with joy, but with each succeeding meeting there may be a vacant place at the fire-side and an unturned plate at the festal board. Selma is the old homestead of this Association. Here, as an organized body, you were born, and here is the cradle in which was rocked your

infant form. Your sires were free from a tuberculous diathesis or a carcinomatous cachexia. As a result, your constitution has been so strong that it has successfully withstood the macroscopical assaults that have been made upon it.

I beseech you to maintain the high standard erected, to resist invasion by the streptococcus of discontent, and to clasp hands, one with another, and press forward to yet greater achievements.

The Dallas County Medical Society is honored in being your host and takes pleasure in throwing widely open to you the door of the parental home and in welcoming you to a place at the family fireside.

While we do not look upon you as returning prodigal sons, we will kill the fatted calf and incidentally, I hope, a few spring chickens.

But, as I look over this audience, I am pained to note the absence of some faces that were often to be seen at these meetings.

Astronomers tell us that stars are ever and anon silently passing out of existence. So is it with the shining lives of the good and the brave..

Since last we met the life of Dr. John A. McKinnon, who so eloquently and touchingly welcomed this Association on the occasion of its previous meeting in this city, has faded out, to shine, we trust, through all eternity.

In the quiet hours of night we stand admiring "the heavens which declare the glory of God." The moon has long since pillowed her head in rest, and all nature is quietly sleeping, when, suddenly, from some celestial disturbance a bright star is snatched from its sphere and hurled through space to annihilation, leaving in its wake brilliancy and beauty. Such was the tragic ending of the beautiful life of our late colleague, Dr. George Chapman, of Birmingham.

We welcome you because you have, for the time being, laid aside other and important duties and are here in testimony of your devotion to our profession, as well as to renew pledges of loyalty to one another and to take counsel as to the best methods of accomplishing the great objects for which you are striving.

We welcome you as representative men, impressed with the responsibilities of your calling, and realizing that precious opportunities will come to those who are well-equipped for prolonging the lives of their fellow men, and thus promoting their happiness.

We earnestly hope that your deliberations will be of such character as shall prove beneficial to every member of this Association, and that you may deserve to be reckoned with those who live

"In minds made better by their presence,
Live in pulses stirred to generosity,
In deeds of daring rectitude,
In scorn for miserable aims that end with self,
In thoughts sublime that pierce the night like stars,
And urge man's search for vaster issues."

The President then introduced Mayor A. L. McLeod, who in graceful and cordial terms welcomed the Association to Selma.

It is to be regretted that a copy of the address could not be obtained for insertion here.

President Cunningham then read his message as follows:

THE MESSAGE OF THE PRESIDENT.

RUSSELL MCWHORTER CUNNINGHAM, M. D., Ensley, Ala..

Senior Counsellor M. A. S. A. Ex-President Tri-State Society Alabama, Georgia, and Tennessee; Ex-President Jefferson County Medical Society; Member Southern Surgical and Gynecological Association.

Gentlemen of the Medical Association of Alabama:

The Constitution of the Medical Association makes it my duty to "submit to the Association a message, devoted to the discussion of the interests, objects and business of the Association." These are clearly set forth in Sec. 2, Article 3 of the Constitution as follows:

Sec. 2, Article 3. Objects: "The objects of this Association shall be to organize the medical profession of the State in the most efficient manner possible. To encourage a high standard of medical education, and regulate the qualifications of practitioners of medicine in the State. To promote professional brotherhood, and encourage a high standard of professional ethics. To combine the influence of all the medical men in the State, so as to secure by legislative enactments their own legitimate rights and privileges, and the protection of the people against all medical ignorance and dishonesty. To encourage the study of the medical botany, medical topography, and medical climatology of the State. To se-

cure careful and reliable accounts of all the endemic and epidemic diseases of the State. In a word, to watch over and protect, encourage and aggrandize all the interests of the medical profession of the State."

This section may be succinctly summarized as follows:

1. To organize the medical profession of the State.
2. To promote professional fraternity and ethical relation.
3. To combine the medical men of the State in a common interest.
4. To encourage a study of local conditions in the State relative to the causes of disease.
5. To study and record the epidemics of diseases that may occur in the State.
6. To raise the standard of medical education.
7. To protect the people against medical ignorance and dishonesty.
8. To prevent or limit the spread of endemic and epidemic diseases in the State.
9. To prevent the introduction of infectious and contagious diseases into the State from abroad.
10. To collect the vital and mortuary statistics of the State.

Of these general objects the first five, to wit, the organization of the profession, the promotion of professional fraternity and ethics, the co-operation of the medical men of the State, the study and discussion of medical and scientific subjects, and the study and record of endemic and epidemic diseases, are wholly in the hands and power of the profession, without the intervention of national, state, or municipal laws.

The last five, to wit, the elevation and maintenance of a higher standard of medical education, the protection of the people against medical ignorance and dishonesty, the prevention of diseases at home, the prevention of the introduction of infectious and contagious diseases from abroad and the collection of vital and mortuary statistics, are all attainable only through the instrumentality of law.

To procure the first five we have as instrumentalities the medical association of the State and the medical societies of the several counties thereof.

To procure the last five, laws have been enacted, to wit:

1. To regulate the practice of medicine by the establishment of examining boards to ascertain the qualifications of practitioners of medicine.
2. To provide for the collection of vital and mortuary statistics.
3. To provide for the limitation of some of the infectious and contagious diseases.
4. To guard against the introduction of foreign diseases by a regulation of quarantine.

These laws are executed by—

1. The medical association of the State of Alabama, which is the State Board of Health, through its committee of public health, to wit, the State Board of Censors, whose executive officer is the State Health Officer.
2. By the several County Medical Societies, which are the County Boards of Health, through their committees of public health, to-wit, the County Boards of Censors, whose executive officers are the County Health officers. The terms of office, the incumbents thereof, and their duties, are fixed, elected, and prescribed by the Medical Association of the State and by the several County Medical Societies, respectively.

The finances are provided by a State appropriation, formerly of $3,000.00, now of $4,000.00, subject to the order of the State Board of Health, and such sums as may be appropriated from time to time by the courts of County Commissioners and Boards of Revenue of the several counties.

The salaries paid are $1,800.00 to the State Health Officer, $900.00 to the clerk of the State Committee of Public Health and such salaries as may be fixed for the County Health Officers by the Courts of County Commissioners or Boards of Revenue of the several counties.

This brief summary of the objects and achievements of the medical profession in Alabama, through their State and county organizations, should cause every loyal doctor's heart to swell with pride; should fire his soul with greater aspiration, should stimulate him to still greater endeavor, and should cause him to re-consecrate his life

and work to a better service of God and humanity, for such, my colleagues, is the real work of the medical profession. Such is the conception, tradition and practice; but not in accordance with any sectarian precept and practice, but in the far broader conception of the fatherhood of God and the brotherhood of man, which knows no sect, creed, race, nationality or individual, but which devotes its endeavors to the relief of suffering wherever found. From this lofty, but true conception of the aspirations, ambitions, and objects of the medical profession, let us examine the present condition of all these questions and problems and see if anything can be further accomplished in the achievement of the objects of this association.

ORGANIZATION OF THE PROFESSION.

Organization and system is the law of God, the law of nature, and a human necessity. Without it there could not be a civilization, a government, an institution or anything else of an organic nature. Never before in the world's history was this truth more generally accepted and adopted in the practical affairs of life than at the present time. Not only are men and women of a like interest uniting their individual efforts, but even interests of analogous or allied natures are uniting. Thus we have the industrial, agricultural, commercial, common carrier, and labor organizations, all striving to better their financial condition. This, with them, certainly comes first. Whether or not these organizations will be for the best interests of society and the world generally remains to be seen. The organization of the medical profession, on the other hand, is almost wholly, certainly, primarily, in the interest of the people. The only benefit that the individual doctor gets is the indirect effect of association. In this way he becomes better qualified to practice his profession, and in that way, and in that way only is he financially benefitted. No where in the Constitution or ordinances of the Medical Association or of the County Societies is there a vestige of the "trades" principle, purpose, or policy. We have no fee bills, no black lists, no boycot. On these matters every

doctor is a law unto himself. The only regulation we have is the ordinance regulating contract practice. Therefore, whatever else may be said, nothing can be truthfully charged to selfishness or personal gain. Notwithstanding these facts, it is the duty of every doctor in the State to unite with the legitimate organization of his profession. To this end, every legitimate and honorable effort should be made. For any organization to be effectual the following conditions are necessary:

1. It must embrace all those who have a common interest.
2. The special interests of the individual must not be fostered by the sacrifice of the interests of the many.
3. A majority must rule.
4. Constituted authority must be respected and obeyed.

The organization of the Medical Association of the State of Alabama embraces the following classes of members, to wit:

1. All members of chartered County Medical Societies.
2. Two delegates from each County Medical Society.
3. One hundred Counsellors.
4. A limited number of correspondents.

All these have the right to attend the sessions of the Association, to read papers, participate in the discussions, and have a common right upon the floor. Delegates and Counsellors alone can vote, and the latter only can hold office. Therefore, not more than 232 votes, all the 66 counties being represented, could be cast at one time upon a question. As a matter of fact, however, there is never a full representation of all the counties, nor are all the counsellors usually present. This does not include the Grand Senior life Counsellors which is an indefinite number, the number at the last session being seventeen. From the statistical reports of the several county medical societies reporting last year, and published in the Transaction of the Association, it appears that there were 1,600 physicians in this State. Of these, 930 belonged to the County Societies, 21 were honorary members, and 649 were not members of their county societies. It may be logically inferred that the last number does not embrace all of the doctors not

affiliated with their county societies. From these figures we know that only about 58 per cent. of the doctors of Alabama are members of their organization. It, therefore, follows that something must be done to bring all doctors into professional organization. The Medical Association of the State of Alabama and the County Societies cannot drive derelict doctors into their organization by boycott, professional ostracism or other coercive method. They must be induced to come in from a sense of duty, professional pride, and patriotism, and the assurance that the Association and the County Societies are conducted absolutely fairly and that all have equal rights and privileges in determining the policies, the methods, etc., and in the election of officers and the general conduct of the Association or Societies. In the County Society this is the case, but in the State Association it is not the case. It appears to me, therefore, that one of the urgent needs of this Association is to enlarge its voting membership. This should be done in such a way that every physician in the State who is a member of a county society, would be eligible to become a member of the Medical Association of the State of Alabama. No limitation should be placed upon him save that of his own free will. To this end I respectfully make the following recommendations:

1. That a member in good standing of any County Medical Society in the State may become a member of the Medical Association of the State of Alabama with all the rights and privileges now allowed delegates, upon the payment of an annual fee of five dollars.

2. That after being a member and paying dues at the rate of five dollars per annum for twenty years, he shall become a life member without further payment of dues.

The above suggestion does not in any way propose to abridge the number, the present rights and powers, or dignity of the college of Counsellors. Its only purpose is to open the door wide to all the profession to all the rights and privileges of the Association, so that, if they do not enjoy them it is their own fault. The office of Counsellor, being elective, is, therefore, one of the distinctions conferred by the suffrages of the members of the Association. On the contrary, the college of Counsellors should be kept intact, with its present limitation

as to the number, dues, etc. The only modification I would suggest is, that the question of locality have nothing whatever to do with it, but efficiency, professional ability, and general excellence alone be the qualifications. Let this office be what it should be, but is not, one of special distinction. With this estimate and standard of the office of Counsellor, there will be few that would decline the honor when conferred by the association. It would be the ambition of all to attain it.

SCIENTIFIC FEATURES.

The most important problem of strictly professional interest is the reading and discussion of papers. The present system of appointing reporters is a good one. To get reports upon such subjects as Medical Botany, Topography and Climatology, etc., is next to impossible. Only those who have been president of the Association know the difficulty. I therefore suggest that the Association offer a prize of $25.00 for the best paper upon any one subject pertaining to Medical Topography or Climatology in this State, as a whole or a defined district. The money would be no object, but the honor of success would be.

Papers read before the Association and the discussion of the same should be printed in the Transactions. I therefore recommend the employment of a stenographer to take down and type-write the discussion.

FRATERNITY AND ETHICS.

Professional brotherhood has reference to the relation of doctors as men. It is felt in the heart, and is expressed by friendly greeting and association, and by personal kindness, sympathy, and interest. Professional Ethics refers to their business relation, and is a matter of honor, and is expressed by a fair and honorable conduct towards each other. These rules of conduct, if such are needed, are all laid down in the code of Ethics. Doctors whose intentions are good, and who have common sense, rarely violate a principle of Ethics, even though they have never read them in print.

Every opportunity to bring doctors closer together socially and personally should be embraced. Therefore,

the social features of the State and County Societies should be encouraged. It would be a good plan for the County Societies to have annual, semi-annual, or quarterly social entertainments as a part of their regular work. All these problems are questions for the profession itself to solve. With a compact, co-operative, united, enthusiastic, and well intentioned profession, organized into State and County Societies, there can be but one result, to wit, success.

OBJECTS FOR THE ATTAINMENT OF WHICH LAW IS NECESSARY.

I now call your attention to the objects of this Association for the attainment of which law and its impartial execution are necessary. To attain these objects the profession by itself, organized or otherwise, is powerless. The enactment and execution of the necessary laws without the counsel and co-operation of an organized medical profession is impossible. Therefore, there should be an unbiased, unprejudiced co-operation between the profession and the legislative department of the State. The medical profession must discover the remedy and devise the ways and means of applying it, and the law makers must make these operative and effective by legislative enactment. The profession must be wholly unselfish, and the law makers wholly unbiased. Both must recognize their responsibility to Almighty God and to the people for the way and manner they discharge their duty, and the motives that inspire them. Selfishness and personal interest, prejudice and sentiment must not control either. This is the proper view of the relationship between the organized medical profession and the law-making power of the State, and from this standpoint, we will briefly discuss some of the problems of legislation.

1. The standard of medical education, and the protection of the people against medical ignorance and dishonesty.

The present law regulating the practice of medicine in this State has revolutionized the whole question of medical education and the necessary qualifications to prac-

tice medicine. When this law was enacted there were only a few colleges of medicine that required a preliminary literary education, and still fewer that demanded more than two years of attendance for graduation. Now, most of the colleges require a fair preliminary education as a pre-requisite to matriculation, and every respectable medical college in the United States now requires four years or four full courses in four separate years to apply for the degree of doctor of medicine. The methods of teaching have, also, been revolutionized. Most of the colleges now have graded courses. The student is not only required to fill up the time, but to put in his time in hard work. The examinations are strict, exhaustive, and elaborate. Not only is the medical student expected and required to be well-informed in the principles, but also in the practice. To this end clinical teaching in all the departments of medicine is an important and essential part of the curriculum. Not only is the education more thorough, but it is much larger in scope. Microscopic as well as macroscopic study, the purpose and practical use of instruments of precision in the diagnosis and treatment of disease, the chemical analysis of solids and fluids, the differentiation, classification, cultivation, morphology, life history, mode of entrance and exit from the body, etc., etc., of bacteria or micro-organisms, and many other things are a part of the medical education of the day. Not only is there more to teach, but it is better taught, and more is required of the student than ever before. That the thoroughly educated medical student of the day when he gets his degree is better qualified to practice his profession than the graduate of twenty-five years ago, who has not kept up with the profession, is beyond doubt a fact. That all this means a higher, yea, verily, verily, a much higher standard of medical education than formerly existed, and that the people are to a far greater extent protected from medical ignorance and imposture is self evident to all. Gentlemen of the Medical Association, whence comes this radical, wonderful, salutary reformation? Was it through the voluntary efforts of our medical colleges? Was it through a spontaneous regeneration of the medical profession? Was it due to the voluntary

ambition of medical students? No, none of these, the reason is to be found in the enactment of laws regulating the practice of medicine, and their fair and impartial execution. Formerly a diploma, that could be bought, was the peoples' guarantee of the qualifications of doctors. Now it is a diploma that must be merited and a medical education that can stand the tests of Examining Boards, that guarantee the qualifications. Our medical colleges are not mere business institutions, manufacturing so-called doctors at so much per head, but they are necessarily real educational institutions or otherwise their alumni would be turned down by the Examining Boards, and their last state would be worse than their first. Who is it that would haul down this high ensign of worth and merit? Who is it that would degrade the high calling of the physician by lowering the standard of his education and qualifications? Who is it that would expose the people to medical ignorance and dishonesty, which knows not their bodies, their diseases and their treatment, but robs them of their substance? To all these there can be but one answer, the selfishly interested, and those ignorant of the facts, honest, no doubt, but ignorant all the same. This selfishness may be found in the medical colleges that want students with money, rather than students with brains and that prefer a bank account to reputation as colleges of learning. Or it may be a student of medicine or an unqualified doctor, who can not attain the standard for the want of sense, means, or application, but who wants to get into the pockets of the people. Or it may be some special healer, divine or otherwise, who has discovered something that nobody besides himself and his clan know any thing about; who has a panacea for all the ills of the flesh, found only in his "ism," "pathy," or "system," but who does not know any thing of the body, its parts, structure, tissues, and cells, or any thing of their functions, or anything of the changes that take place in converting normal into abnormal structures, or anything of the cause effecting these changes, or anything of the symptoms and signs which denote the changes, or anything of the rational, logical, and practical meth-

ods of restoring health. Or, it may be some scheming politician who wants the influence of some political factor in the politics of his district, and who is willing to sacrifice what he knows to be the right for the sake of this influence. It will appear to some that such selfish interest as this can have no influence in repealing laws that are against them, or in procuring laws that will favor them. Let me say to such that this opinion, though sincere and wholly unsophisticated, is not founded upon personal observation and facts. In the wonderful reformation in medical education in the United States, Alabama was a pioneer. Not only so, her system is one of the best to be found in the States. With vigilance and determination upon the part of the profession, these laws are here to stay. Many of the people see the necessity for these laws. They understand their fairness, and know that they protect the people largely from medical ignorance and fraud, so far as the regular profession is concerned. They have not fully realized the importance of requiring all who propose to cure diseases, no matter what their method may be, to come up to the proper standard of qualification to practice medicine, and some harbor a suspicion that the present laws regulating the practice of medicine are mainly in the interest of the regular doctors, that these doctors, through their examining boards, keep out those who are not of their school or who do not practice their methods, all of which is grossly erroneous. The indications are clear; the people must be shown:

1. That the regular medical profession is not a sect, or school, professing some particular "ism," "pathy," or "system," but that it practices a logical, rational art, based upon a practical knowledge of the body in health and disease, the causes of disease, the changes in the organs and tissues and cells of the body in the different diseases, symptoms and signs of diseases, their differentiation or diagnosis, their causes, terminations, etc., and the use and application of such methods and means—remedies if you please—which science and common sense indicate and experience has shown to be of the greatest benefit. We draw the line at no remedy that is safe and useful. We should teach

the people, that medicine is a rational, logical, natural science that must be practiced in a rational, logical, natural way to be safe and useful. We should also teach them that a system or remedy that is itself harmless, but which does no good, and which takes the place of methods and remedies that are useful and do good, is harmful in that it displaces the proper treatment. They should be taught to apply the same common sense in questions concerning their health, and their restoration to health when diseased, that they do in the every day affairs of life. Should a farmer's gin break down and some one come and tell him that his gin is not broken in any of its parts, that the trouble is only in his mind, or that there is really trouble somewhere, but that the break could be repaired by rubbing, or by prayer, the farmer would very properly regard such a person a lunatic, if sincere, or a rascal, if not. Were a man drowning, choking, or bleeding to death, and were he told that such condition was merely in his mind, he would not only properly regard the statement as absurd, but would surely lay hold of a rope or rail thrown to him, would allow some one to pull the thing out that was choking him to death or to check the flow of blood. It is just as absurd to say to a man with typhoid fever, pneumonia, or any other disease, that it is all in his mind, or that he can be cured by rubbing or by this or that particular remedy. The people should learn that the "school" of medicine, the "ism," "pathy," "system" that defies common sense, truth, and facts, and claims for itself and its followers some special, particular, obscure, or secret method or remedy, is an imposture and fraud. The popular idea is that the regular medical profession is a particular, defined, and distinct school of medicine, having fixed theories, and practice, in accordance with some theoretical hypothesis. Nothing is further from the truth. Hippocrates, 400 years before Christ, formulated the principles and rules which distinguish the regular profession. He taught the proper and only reliable method of study—that of nature herself, as she works and manifests herself in the bodies of living beings. All sources of light should be invoked; any hidden facts, when brought to

light, must stand, though they set at naught the "theories," "ism," pathies" of centuries. This is the method of the regular profession.

The facts, whatever they may be, that relate to health and disease form the basis of its knowledge. Its theory is the logical, rational, interpretation of these facts, their significance, relation to each other, their cause and effect, immediate and remote, their grouping, classification, etc., and its practice is the art which seeks to apply all these facts to the diagnosis, prognosis, prevention and treatment of disease. The principles and practice of medicine, then, in their broadest and most comprehensive sense may be divided into several distinct departments.

1. Normal Anatomy, or the study of organs, fluids, tissues and cells in all their aspects and relations in health.
2. Morbid Anatomy, or the study of organs, fluids, tissues and cells in all their aspects and relations in disease—disease in general and in particular.
3. Physiology, or the study of the function or use of organs, systems of organs, fluids, tissues, and cells, in health.
4. Etiology, or the study of the causes of diseases, remote and immediate, predisposing and exciting.
5. Symptomatology, or the study of symptoms and signs of disease in general and of particular diseases.
6. Diagnosis, or the naming of the particular disease, or differentiation of diseases.
7. Prognosis, or the study of the termination of disease.
8. Prophylaxis, or the study of the prevention of disease.
9. Treatment, or the study of the cure of disease.

The classical studies embraced in a general medical education, are anatomy, physiology, chemistry, therapeutics or materia medica, principles and practice of medicine, surgery, obstetrics, gynecology, hygiene and medical jurisprudence. Add to these the special study of the diseases of the eye, ear, nose, throat, genito-urinary system, the nervous system, including the brain, the skin, etc., altogether would make not less

than 20,000 closely printed octavo pages. These are merely the text-books, one on each branch. If we add to these a classical text book upon important subdivisions of these studies, we easily have 20,000 more. A well selected, properly assorted, medical library, will contain not less than 50 books containing at least 50,000 octavo pages. By these I mean the important and essential books containing the essentials of the science and art of medicine.

Such is a brief outline, a mere index as it were, of the extent and scope of a medical education. Those who desire to practice medicine in a scientific and honest way, pursue these studies and adopt these methods. They make up the regular medical profession. They are not "Allopaths" or any other sort of "path." They claim no exclusive information, secret remedies, or hidden skill. They take no occult forces. They appeal to no unnatural agency. They do not claim to have one remedy for all diseases, nor a remedy for every disease, nor a single remedy for any disease. Their treatment is a rational, logical, common sense application of the best method and the best agencies to aid nature in the restoration to health. If they have a motto at all it is *Vis Medicatrix Naturae*, and not *Contraria Contraris Curantur*.

Knowledge, judgment, skill constitute the triumvirate that measures the ability and success of the doctor. We, therefore, claim that we are entitled to the distinction implied in the designation "regular," in contradistinction of the "irregular" or quack.

Such is the scope of study, the principles and practice of the regular medical profession. From the foregoing remarks it may be inferred that I have committed the medical profession to materialism in the theologic sense. If such inference is made, I want to disclaim it. It is only in the scientific sense that I have thus written. On the contrary, let me emphasize the fact that of all men on earth doctors should be convinced of the existence of a Creator. This conception is a logical and scientific necessity to account for the beginning of the material universe, and the creation of natural laws. Let me go further and say that I be-

lieve, and in this I voice the belief of a majority of the medical profession, that there is a true and living God to whom all should look for guidance, help, and blessing. Let me say further that this same God will not hold the man or woman guiltless who allows one of His creatures, created in His own image, to die through his or her neglect or ignorance. There is no greater responsibility to God and man than that which inheres in the practice of medicine.

I hope you will pardon me for the time taken in the discussion of this aspect of the problem. To inform the people upon these matters is the most important and desirable aspect, and once achieved, the rest is easy and solves itself.

To disabuse the minds of the people that the State Medical Association is a trust, monopoly or trades-union, whose purpose and object is to keep out of the profession the competition of others, and that the act regulating the practice of medicine is intended for that purpose.

We know that such is not the object of the Association, and the act does not operate in lessening the competition. On the contrary, the numerical competition is greater than ever and the quality of the competition is infinitely better. There are not only more doctors than formerly, but very much better doctors. The opportunities of the educated, skilled and experienced doctor to display his wisdom and incidentally the ignorance of his competitor are not so numerous as formerly. Mistakes in diagnosis, prognosis, and treatment are not as common as they used to be, therefore, there are not so many examples of error to demonstrate the inferiority of some and the superiority of others. While there is still a great deal of difference in the ability and skill of doctors, as in all other callings, the average is much higher. It, therefore, follows that instead of the well educated in the medical profession being benefitted from the business standpoint by the act regulating the practice of medicine, they have been actually injured. This is too apparent to require further discussion.

To convince the people that the right to practice medicine is not a natural and inherent right, but a

right to be authorized only upon conditions of qualifications.

It is strange that any argument should be necessary upon this question, but it is. A stump speaker or a legislator will proclaim with all the zeal and spirit of a persecuted patriot, that he has the right to employ any body he pleases, and that any body that pleases has a right to be employed, to treat diseases. This is always followed by great applause in the galleries. To hear the tale of woes of some of these persecuted lovers of liberty, one would think that the act regulating the practice of medicine was unique and stood alone in the regulating business, and that it specially, particularly, and specifically deprived men of their liberties. Add to this the plaintive wail, properly seasoned with tears of some disciple, who appeals to have the privilege to employ the special "pathist" who can cure him or her, generally the latter, after the "allopathist" has treated him or her for years, got all they had, and finally turned him or her over to their sad, but inevitable fate —death. This is not an over-drawn picture. It appeals to the natural sense of justice and right of the people. And above all, to their sentiment. The other side is put to great disadvantage. The explanation in the case of the living witness, there present and testifying, that there was nothing the matter in the first place but some form of functional or inorganic disorder, or error in hygiene that had been corrected, not by the treatment, but by the will of the patient only, would sound prosaic and inappropriate. Then, again, the patients treated by these "ostracised" doctors who were really diseased, can not be called from their graves to testify. Now what the people want to understand right here is this:

That a pre-requisite to the safe and intelligent practice of medicine is a knowledge of disease, and to know how to discriminate it. That this knowledge is a knowledge of natural facts; that it is constant. That pneumonia is pneumonia; that typhoid fever is typhoid fever; that a broken bone is a broken bone, and that the facts about all these must be the same, whether treated by an osteopath, homeopath, allopath or any other sort

of a "path," Christian scientist or any other sort of scientist, regardless of any sort of treatment or no treatment whatever, and that the act regarding the practice of medicine is intended to apply to all alike, regardless of their system of treatment, and that the particular "pathist" who asks to be exempt from the act is working for special legislation in his own interest.

That instead of the regular profession asking for legislation for the purpose of creating a monopoly, the irregulars are asking for legislation to be exempt from the operation of the law. That the only class legislation asked is asked by the irregulars themselves. All who profess to treat disease should be treated alike, no matter what their system or method, and to this end the law should be amended. The law regulates many other professions and vocations. Lawyers, dentists, teachers and others must comply with certain regulations before they are allowed to practice their profession. How much more important is the regulation of that profession which deals with the life and health of human beings.

RECOMMENDATIONS.

The present method of examination is by the County Board of Censors, or by the State Board of Censors.

A certificate from any of these entitles the holder to practice medicine any where in the State. If an applicant is not passed by the County Board to which he applies, he can appeal to the State Board. If the County Board does not do its duty and passes an unworthy applicant there is no appeal. There is no uniformity in the standard fixed by the several County Boards. Some are very easy to pass, and others are very hard to pass. It therefore follows that applicants frequently go into one county to stand their examination and after getting their certificate go into another county to practice, whose Board they could not have passed.

What is needed to perfect the law and its applicants are the following:

1. All who propose to cure disease by any method, system, or practice whatever should be required to

stand an examination in Anatomy, Physiology, Pathology, Chemistry, Symptomatology and Diagnosis. If the applicant intends to practice general or regular medicine he should be required to stand an examination also in Practice of Medicine, Surgery, Obstetrics and Gynecology.

2. Those who claim to practice some particular or special system or method should be examined as to their qualifications to practice their methods, by those familiar with the particular method.

3. The certificate should set forth that the applicant has passed a satisfactory examination in Anatomy, Physiology, Pathology, Chemistry, Symptomatology and Diagnosis, and that he has passed a satisfactory examination in the treatment of diseases according to his school or system.

4. These examinations should be uniform, impartial and fair.

To properly execute such a law a State Board of Examiners is necessary. This Board should contain representatives, according to the numerical proportion of the so-called schools of medicine. The examinations in Anatomy, Physiology, Pathology, Chemistry, Symptomatology and Diagnosis, should be conducted and passed upon and signed by the entire board. The examination in the system or method of treatment should be conducted, passed upon, and signed by the representatives of the particular school the applicant proposes to follow—the application for examination to be confined to the graduates of some school of medicine.

If the law thus provided, and a State Examining Board thus created, the members thereof to be appointed by the organizations of the different schools of medicine, in proportion to the numerical ratio of members, the standard of medical education would be greatly improved, and the people thoroughly protected from medical ignorance and dishonesty, at the hands of the irregular as well as the regular practitioners. The justice, fairness, and efficiency of the law regulating the practice of medicine would be acknowledged by all except the selfish and personally interested, whose opposition we can afford to defy.

I therefore recommend that this Association pass a resolution instructing the State Board of Censors to endeavor to procure the necessary legislation to affect these reforms upon the lines outlined above.

The prevention and limitation of endemic and epidemic infectious and contagious diseases, domestic and foreign.

Upon no question do the people need more enlightenment than they do upon the prevention of disease. In fact, in all the relations of life prevention in the estimation of mankind is subordinate to the importance of cure. This is so in ethical, sociological, political, and all other questions. But it is especially so in the matter of disease. Here again the people should learn to apply the same principles of common sense that they do in their every day affairs of life.

If the home of the germ is not in this country, then it must not be allowed to visit it. Hence the necessity for quarantine. If this country is its home, and it prevails as endemics and epidemics, then every effort to stamp it out by local quarantine, isolation and disinfection should be carried out. In a few of these diseases medical science is wholly inadequate, for example, La Grippe and Dengue. Most of them, however, if the known methods were applied, could be limited, checked, and ultimately annihilated. In fact, we have one disease, at least, that we can annihilate and destroy. That is smallpox. Vaccination renders the human body immune, and therefore the smallpox germ is harmless. The application of the methods to effect these blessings requires community of action, in other words, law. Here again we are met with the so-called rights of man. Here again it may be said, and has been said by intelligent, honest, and sincere men upon the floor of the House and Senate of Alabama, that this was a free country and that one had the right to die of smallpox. It can be said with the same sense and better logic, that one has the right to blow out his brains. In fact, the latter is far preferable, because in that case, no body's brains would suffer but his own, but in the first case, while he is exercising his right to die of smallpox, he is at the same time killing other

people, who do not want to die of small-pox. The law says that a man shall not carry a concealed weapon, but it does not prevent him from carrying far more deadly weapons, the germs of disease. Typhoid fever, diphtheria, scarlet fever, smallpox, tuberculosis, and venereal diseases, and possibly malaria could ultimately be destroyed and wiped off the face of the earth by applying religiously, thoroughly, and systematically the known methods of preventive medicine. All these we have with us in this country. Yellow fever, typhus fever, the plague, and leprosy are not diseases of this country and they should not be allowed to enter and could be effectually prevented by applying the same principles and methods in the regulation of quarantine. The hope to succeed in all these is utopian and optimistic, but they are nevertheless scientifically attainable. Therefore, there is no more important work for the Association than to procure the enactment of appropriate legislation regulating all these matters, and in the education of the people up to the point of action.

THE COLLECTION OF VITAL AND MORTUARY STATISTICS.

This has a scientific and commercial aspect; scientific in that it throws statistical light upon the nature, variety, and kind of diseases in the State, the rate of increase of the population, etc., commercial, in that it enhances the value of property by showing the salubrity and good health enjoyed in the State. The law requires reports upon all these matters, and the doctor, as usual, performs his duty in this particular without money and without price, even at his own expense for postage.

These things he must do under penalty of the law.

THE WORK OF THE ASSOCIATION.

Failure to procure further necessary legislation to carry into effect the principles and methods of preventive medicine, and to further regulate the practice of medicine, etc., calls for an explanation. This Association, last year, instructed its committee on public health to prepare certain bills and press them for en-

actment into laws. All failed, with one exception, and that only succeeded in part. The Association asked for an appropriation of $5,000.00, an increase of $2,-000.00. The law passed for $4,000.00 or just one-half the increase asked. The explanation of this failure is to be found in the following facts:

1. The masses of the people know nothing about the question and take no interest whatever in it.

2. The members of the General Assembly know very little about it, and either have not the time or will not take the time to study the subject.

3. As a political factor in State politics the Medical Association of the State is a non-entity, and has no potential influence.

The indications, therefore, are perfectly clear:

1. To educate the people up to the proper appreciation of the subject and to arouse them into action.

2. To bring to bear upon the General Assembly such influences that will cause them to seriously take up these questions and pass upon their merits.

Now, who is going to do these things? Unless they are done, all the resolutions and plans we may adopt will get no further than this body. The question is squarely up to you, gentlemen of the Association. The motto of your Association is non-commercial, non-political. The ethics of the profession prescribe the public discussion of medical questions. The personal interests, that is, the financial interests of all of us are directly on the other side of the question. When we prevent disease we kill the goose that laid the golden egg. The traditions, customs, and dignity of the profession eschew active politics.

Your whole and exclusive purpose is to benefit the public. In one word it is self-sacrifice for the general good.

THE ASSOCIATION CAN ADOPT ONE OF THREE POLICIES.

1. To rest with what has already been accomplished.

2. To consider, formulate, and recommend such bills as we think necessary, and present them to the legislature through the committee of public health and

to press them in an honorable, quiet, dignified manner as we have done heretofore.

3. To go into active politics, send missionaries among the people to enlighten them, and to bring the influence of this organization and its members to bear in a concerted and active campaign in the politics of the State.

In discussing these various policies, the question has been asked by some, why should the medical profession take any special or particular interest in the public health? Where did they get their authority to act for the public in these matters. Whose commission do they hold? There can be but one excuse for this question, and that is the questioners measure other people by their own motives and that a purely patriotic, unselfish, and disinterested motive can not exist in this day and generation.

The answer to the question, however, is plain and simple:

1. The information necessary to make effective these reforms is wholly technical, that is a part of medical, and therefore, a special science.

A lawyer is no more expected to understand these problems than a doctor is to understand the principles of law and the rules of its practice. It would be just as rational to give a doctor the authority and power of a judge, as to give a lawyer the authority and power of an official sanitarian.

2. Doctors as individuals are the medical advisers of their clients, both in preventing and curing disease. It would therefore follow that doctors as a whole are the natural advisers of the community as a whole upon these important matters.

3. The very nature of his vocation makes the doctor, more or less, a philanthropist. This he has been taught, it is the traditions of his profession, his paying clients expect it, and last, but not least, in the estimate of some, his personal interests and professional reputation require it of him. For these reasons the organized medical profession is the natural, rightful, and proper guardian of the public health. This duty it faithfully and fully discharges when it investigates

and discovers the causes of disease, and the method of its prevention, and formulates rules and regulations necessary to apply them. When these rules and regulations must assume the force and form of law to be effective, the profession discharges its responsibility wholly and fully when it tries by honorable, legitimate, and dignified means to get them enacted.

I, therefore, recommend that this Association continue the investigation of the causes of disease, the methods of their prevention, etc., and to formulate from time to time such bills as are necessary to make them effective, to present these bills to the General Assembly of the State, and to give that body all the information we can to aid them in their deliberation and stop at that. When we do this we have done our duty. If the law makers disregard the advice, then with them rests the responsibility. Finally, I would not advise the profession as individuals or as an organization to go into active politics, to attain these objects. If the public can not or will not see the plain facts as they are, and if the law makers will not do their duty, the medical profession should not try to force its counsel upon the public, no more than the individual doctor does upon his patients.

There is an aspect of the question, however, that demands much serious consideration. A great deal has been said in this message about the enlightenment and education of the people upon all these questions.

It is no reflection upon their intelligence, or their education or general culture, to say that they need information upon Sanitary and Medical subjects. Another thing, the people when informed usually act, and when they do, they act intelligently and honestly. Therefore their education in these matters is of great importance. The method is difficult to find.

An address issued by the Committee of Public Health from time to time and published in the newspapers would be one way. Newspapers, however, have a business department, and they might not see their way clear to publish these communications without first consulting the business office. The same remarks apply to the printing of pamphlets, etc. This Associa-

tion has no money, and therefore, the business aspect of the question makes this method doubtful.

Another plan might be suggested for the county societies to hold annual or semi-annual public meetings and then discuss these questions. To this plan are ethical objections, and questions of propriety. There is one thing, however, about which I have no doubt, and that is that the people, once informed, will drive from this State every medical imposter, will destroy the power and business of fraud and quackery, and will provide the necessary laws to protect the people from the ravages of preventable disease. The problem of instructing the people I leave to you.

Gentlemen of the Medical Association, your past achievement has been great, yea, marvellous.

The mind that conceived the plan was a master mind; the courage that prosecuted it was dauntless; the statesmanship and diplomacy that won it, were matchless. That mind, courage, and statesmanship are no longer available to plan, execute, and achieve, but they still live in the hearts of the members of this Association to inspire them with hope, to encourage them in their work, and as an example for their methods.

Jerome Cochran may have a successor, but his equal in leadership will not be found. We may perpetuate his memory in marble and bronze, but his work for humanity and his profession is his lasting, indestructible monument. Many of the great men who stood by him and aided him in his work have passed away. Others are passing away. The old regime will soon be history. The new must assume its place. Let us not falter in the great work before us.

I want to congratulate you on the ability, efficiency, and successful administration of your State Health Officer. His heart is in his work, his mind is active and alert, his attention to business constant and effective. His great ambition is to serve the State with fidelity and faithfulness. In this he is eminently successful. With scant means at his disposal, he has accomplished more in preventing the introduction and spread of yellow fever in this State than any health officer in the Gulf States. His integrity is unassail-

able; his fidelity to his trust unwavering; his loyalty unquestionable. The ability necessary to discharge the duties of the office, its actual labors and responsibility require a great man and at least a fair compensation should be allowed. The salary is fixed by this Association. I therefore earnestly recommend that the salary of the State Health Officer be increased to $2,400.00 per annum. I desire also to commend the faithful work of the Secretary of the Association. His duties are responsible and difficult. The time and labor required are considerable. I therefore earnestly recommend that the Secretary's salary be increased $100.00 per annum.

I also recommend that we persevere in the efforts to raise the necessary funds to erect a suitable monument to the late Dr. Jerome Cochran.

I also recommend that this Association take an active interest in the American Medical Association. This great National Association of American doctors should have all the support this Association is capable of giving it.

I desire, also, to commend to this Association the Tri-State Medical Association of Alabama, Georgia, and Tennessee. This society is devoted exclusively to the reading and discussion of medical papers. Its meetings are always pleasant and profitable. I hope that the doctors of Alabama will attend its meeting, and take more interest in it than they have heretofore.

There are other things to which I would like to call your attention but the length of this message forbids.

With this session of the Association my service as its president ceases. I have not done much to further its interest. Indeed, the duties of the office, so far as actual work is concerned, are not great. I have discharged them to the best of my ability. I have tried to uphold the honor and dignity of the profession by my own personal conduct, and have tried to do all I could to represent this Association where and when my official position called me.

If I have been unfaithful or remiss, let my good intention and best endeavors plead for my justification. Let me apologize for the length of this message. I

have said many things more for the education of the public than for your own edification. If the conservative minds of this Association are shocked at the radical reforms suggested, let me say to them that they are my honest and sincere and matured convictions, which I believe are predicated upon the facts and logical postulates to be derived from history and demonstrated by present conditions. To have written otherwise than I believe, would be cowardice and hypocrisy which would be unworthy of the president of this Association. If in your wisdom they are right, adopt them; if they are wrong, reject them. Whatever you do I know will be done with the proper motive and the best intentions, and no doubt will be to the best interest of this Association and of the people of the State.

In conclusion let me thank you again for the great honor you conferred upon me by electing me your president. It is an honor to be a physician; it is honorable to be a member of the organization of his profession; it is a distinction to be its president.

The life work of the doctor is hard, difficult, and comparatively unremunerative; his responsibility is the care in health and disease of the earthly tabernacle of the human soul; with the conception of the embryo his mission begins, officiating at its birth and extending through chilhood, youth, adult age and dotage, ending only when the eyes are closed in death. For all this he gets little of this world's goods, very little more of its gratitude and less of its honors. But if work faithfully performed and deeds of charity and benevolence count, he will surely have great treasures laid up where neither moth nor rust doth corrupt nor thieves break through and steal. May we so think, live, and act that when the final day comes we may have it said of us "well done thou good and faithful servant."

Under the rules the message was referred to the Board of Censors.

The report of the Senior Vice-President, Dr. S. G. Gay, of Selma, was next in order and was presented as follows:

REPORT OF THE SENIOR VICE-PRESIDENT.

SAMUEL GILBERT GAY, M. D., SELMA, ALA.

Senior Counsellor of the Medical Association of the State of Alabama.

Mr. President and Gentlemen of the Medical Association of the State of Alabama:

It is with pleasure that I come before you to present this, my third and last report for the Southern division. It is to me a source of pride that during my three years of service as vice-president I have succeeded in getting some sort of report from every county in my district.

I desire now to thank each one who has in any way rendered me assistance or complied with my requests. Without your aid my efforts would have been fruitless. In making this report, I have adopted the same classification I used a year ago.

Class I includes those counties in which the organization and work are reported as good.

Class II includes those counties in which the organization and work are reported as fairly good.

Class III includes those counties in which organization and work are reported as unsatisfactory.

Class IV includes those counties in which the methods are loose and irregular, and little or no work is accomplished.

Under Class I the following counties are enumerated: Barbour, 20 members; Baldwin, 6; Bullock, 22; Conecuh, 15; Geneva, 18; Mobile, 41; Montgomery, 54. Total, 172. The following societies have increased in membership during the past year: Barbour, 5; Baldwin, 1; Bullock, 5; Conecuh, 1; Geneva, 3; Mobile, 5; Montgomery, 3. Total, 23.

The Mobile and Montgomery Societies meet weekly; Bullock monthly; Barbour six times a year; Baldwin, Conecuh and Geneva, quarterly; with an average attendance of from 25 to 50 per cent. of their members. Papers are read and cases of interest reported.

In these seven counties there are 68 regular physicians not members of their respective County Societies. Efforts have been made to secure their membership, but without success. Conecuh enjoys the distinction of having all her physicians enrolled as members of the County Society. Sixteen students attend medical colleges from these counties. The number of stu-

dents does not include those from Mobile, as the Secretary of that Society failed to answer that question.

Conecuh and Geneva are the only counties in this group where students have been examined preparatory to the study of medicine; Conecuh 2, Geneva 1. Examinations for certificates of qualification to practice medicine have been held in the following counties: Barbour, 2; Bullock, 2; Baldwin, 1; Geneva, 4; Mobile, 6; Montgomery, 1. Total, 16. All of the counties in Class I have Health Officers whose salaries vary from $100.00 to $600.00 annually. All appear to have a fair amount of success in collecting vital and mortuary statistics. There would be a great improvement if physicians generally would take more interest in this work.

The Boards of Censors in this group of counties are reported as active and attentive to their duties. Barbour, Bullock, Conecuh, Geneva and Mobile report improvement in their work. Baldwin, Bullock, Conecuh, Geneva, Mobile, and Montgomery report the sanitary condition of their jails as good, with ample supplies of wholesome food and water. Barbour reports the sanitary condition of its jail as poor, with plenty of wholesome food and water. Barbour, Bullock, Conecuh, Geneva, Mobile and Montgomery report the sanitary condition of their poor-houses as good. Inmates are well cared for and plentifully supplied with wholesome food and water. Baldwin's poor are cared for by an allowance from the County Commissioners. All counties of this group announce that their delegates will attend this meeting and present Annual Reports.

Class II is composed of the following counties: Butler, 14 members; Crenshaw, 14; Dallas, 30; Clarke, 16; Dale, 18; Elmore, 17; Escambia, 10; Hale, 17; Henry, 25; Lee, 12; Macon, 11; Sumter, 15. Total membership, 245.

Butler, Crenshaw, Dallas, Dale, Lee and Pike endeavor to meet monthly, with an average attendance of from 25 to 60 per cent of their membership.

All these counties report that papers are read and interesting cases presented and discussed. During the past year the following counties received new members: Clarke 2, Dallas 1, Dale 4, Elmore 1, Escambia 1, Hale 4, Henry 2, Lee 2, Macon 2, Marengo 1, Pike 1, Sumter 4. Total, 25.

In the following counties there are regular physicians not members of the Societies as follows: Butler 1, (his application will be acted upon at the next meeting), Crenshaw 2, Clarke 15, Dallas 11, Dale 4, Elmore 13, Escambia 4, Hale 4, Henry 10, Lee 4, Macon 9, Marengo 14, Pike 10, Russell 4, Sumter 5. Total 110.

All of these counties have made efforts to enlarge their membership. The following counties have one or more illegal physicians engaged in practice: Crenshaw 1, Clarke 1, (prosecuted, but conviction failed; Dale 1, no step taken to prosecute; Elmore 1, prosecuted, convicted, paid fine and agreed to discontinue practice; Escambia 1, no effort to enforce the law; Henry 5, no effort to enforce the law. Boards of Censors are reported as attentive to their duties, but they are certainly negligent in some cases. They should at least make an effort to enforce the law regulating practice. Marengo has two illegal doctors and Pike one, with the same old story of nothing done. Russell one, prosecuted and convicted. Total, 14 illegal doctors practicing in nine counties with only four of them prosecuted. Examinations preliminary to the study of medicine have been held as follows: Hale 1, Macon 2, Marengo 1. Total, 4. Students are attending medical colleges as follows: From Butler 1, Crenshaw 1, Dallas 3, Hale 2, Henry 3, Lee 1, Macon 1, Marengo 2, Russell 3, Sumter 2. Total, 22.

Examinations for license to practice medicine have been held as follows: Clarke 2, Dallas 2, Hale 5, Henry 2, Macon 2, Marengo 1, Pike 3. Total 17.

All of these counties have Health Officers with annual salaries as follows:

Butler, $100.00. Collects vital and mortuary statistics.
Dallas, $240.00. Collects statistics.
Dale $200. Poor success in collecting statistics.
Elmore, $200.00. Collects statistics.
Escambia, $150.00. Collects statistics.
Hale, $150.00. Little success in collecting statistics.
Henry, $100.00. Moderate success in collecting statistics.
Lee, no salary, and nothing done in this way.
Macon, no salary, and no statistics collected.
Marengo, $100.00. Poor success in collecting statistics.
Pike, $75.00. Some effort made to collect statistics.
Russell, $100.00. Fail to collect statistics.
Sumter, some success in collecting statistics.

The Boards of Censors in all these counties are reported as attentive to their duties. I beg leave to differ with my reporters, however, as there are illegal doctors practicing in some of these counties and the Boards of Censors make no effort to stop them.

Elmore, Escambia, Hale, Henry, and Lee report some improvement during the past year. The following counties report their jails in good sanitary condition, with an abundance of wholesome

food and water: Butler, Crenshaw, Clarke, Dallas, Dale, Escambia, Hale, Lee, Macon, Marengo, Pike, Russell, and Sumter.

No report on this subject was received from Elmore and Henry.

The following counties report the sanitary condition and the food and water supply of their poor-houses as good: Butler, Crenshaw, Dale, Hale, Lee, Macon, Pike, Russell and Sumter. Clarke reports the sanitary condition of its poor-house as bad, but the food and water supply as good.

The following counties have no poor-houses, but care for their indigent poor by contract through their County Commissioners: Dallas, Dale, Escambia and Marengo. Elmore and Henry failed to report on this subject.

All of these counties expect to send annual reports and delegates to this meeting.

Class III consists of the following counties, with membership as indicated: Autauga 8, Chilton 7, Coffee 13, Covington 7, Greene (not given), Lowndes 20, Monroe 11, Perry 11. Total, 76. The Societies of Coffee, Covington and Lowndes endeavor to meet quarterly; those of Chilton, Monroe and Perry, twice a year; Autauga, once a year. Until recently Green has had no meeting for several years. The Society is now reorganized and will endeavor to have regular meetings in future. At the meetings of the Societies belonging to this group, there is an average attendance of from 30 to 60 per cent. Papers are read, cases reported, and much interest is shown.

The following Societies report increased membership: Autauga, 1, Coffee 1, Lowndes 1, Perry 2. Total, 5.

The following Societies report regular physicians in their counties who are not members of their respective Societies. Autauga 6, Chilton 4, Coffee 5, Covington 2, Lowndes 12, Monroe 3, Perry 5. Total, 37. Most of these Societies report some effort to induce non-affiliated regular physicians to become members.

Chilton and Monroe report one illegal doctor practicing in each of their counties, and no effort made to enforce the law.

Students are reported as attending medical colleges from the following counties: Coffee 1, Covington 1, Lowndes 2, Monroe 3, Perry 4. Total, 11.

Examinations for license to practice medicine have been made as follows: Autauga 3, Chilton 3, Covington 1, Lowndes 1, Perry 1. Total, 9.

The Health Officer of Autauga is paid $50.00. He has little success in collecting vital and mortuary statistics. Chilton has

no Health Officer, no salary and no statistics. Coffee has a Health Officer, no salary, no statistics. Covington has a Health Officer. His salary is $100.00. He has poor success in collecting statistics. No information on this head has come from Greene. The Health Officer of Lowndes receives $25.00. No statistics are collected. Monroe pays $100.00. Collection of statistics is unsatisfactory. Perry pays nothing and collects no statistics. Autauga, Monroe and Perry report their Boards of Censors active in discharge of duties. The other County Societies in this class seem negligent. Covington, Greene and Perry are improving somewhat in their work. Monroe and Perry report the sanitary condition, food and water, of their jails satisfactory. The other counties in this class make indefinite reports, or none. The poor-houses of Chilton, Coffee and Perry are in good sanitary condition, and food and water abundant and wholesome. The poor of Monroe are cared for by contract. The other counties in this class are not reported. All counties of this group expect to send delegates and reports to this meeting.

Class IV includes Choctaw, Washington and Wilcox counties. Of these Washington is the only one that reports a meeting during the past year. The membership is as follows: Choctaw 8, Washington 9, Wilcox 28. Total, 43. One new member is reported in Washington this year. There are regular physicians in each county who are not members of their Societies. Nothing has been done to secure their membership. Five illegal physicians are reported in Choctaw. The same county has three students attending medical colleges, and Washington has one.

Choctaw and Washington have Health Officers and Boards of Censors, but no effort seems to be made to collect statistics. They report the sanitary conditions and supplies of their jails and poor-houses as satisfactory.

On the whole, it is my opinion that there is a general improvement in the work of the Societies this year, though I have had to drop two from Class 1. One other was placed there, however. Last year there were ten counties in Class II. This year there are fourteen. Last year there were six in Class III. This year there are eleven. Last year there were seven counties in Class IV. This year there are but three. These figures demonstrate some improvement. I wish to state that this improvement is in no way due to my efforts.

During my first two terms as your Vice-President, I did as earnest and conscientious work as any man could do. As a result of my experience I recommended to the State Board of Censors

that the Association should provide for the actual expenses of the officers to visit delinquent counties and encourage, advise, and interest them in the work. This the Board declined to recommend, stating, if I remember correctly, that the honor of holding such a position was sufficient compensation for the time, effort, and expense incurred in the performance of its duties. The love of honor, gentlemen, is a noble stimulus to exertion, and no man can more readily respond to it than do I. But when it requires the expenditure of scanty and hard earned dollars to live up to that honor you will find many of us unable to afford the luxury. I have made an experiment which has convinced me that all the writing one can do has but little influence toward the upbuilding of County Medical Societies.

Basing my opinion upon personal experience, and prompted solely by a desire to further the interests of the Association, I again appeal to the Board of Censors to consider this matter and report their decision at this meeting.

The report of the Junior Vice-President, Dr. W. T. Pride, of Madison, was next in order and was presented by him as follows:

REPORT OF THE JUNIOR VICE-PRESIDENT.

WILLIAM THOMAS PRIDE, M. D., MADISON,

Junior Counsellor of the Medical Association of the State of Alabama.

Mr. President and Gentlemen of the Medical Association of the State of Alabama:

At the Mobile meeting of 1899 this Association, to my great surprise and pleasure, elected me Junior Counsellor; and last year you honored me with the Junior Vice-Presidency. Having gone to New Orleans before the adjournment, I did not, of course, know who would have the honor of holding this important position, but supposed it would be some one of our distinguished members more competent and better fitted in every way than myself, but upon my return home, being informed of the honor conferred upon me, I felt inclined to discredit the information, realizing how little I merited it. However, I launched out upon this sea of trouble, knowing but little of the work, and less of the vexation and worry which would fall to my lot. One thing I knew: It

took a beginning to make a successful ending and with this in view I set about my task. My first step was to prepare a letter which I sent to every practicing physician in my district, whether a member of his County Society or not, urging him to become an active member of his County Society, and further insisting on his answering my letter and expressing his views regarding the condition of his Society. This was done in order that I might keep in close touch with the doctors in my district. Imagine my chagrin and astonishment when out of about nine hundred such letters, or rather petitions, I received only thirty replies, and most of that number were complaints such as: "This man ought not to hold this office; and that other fellow is not discharging his duty," etc. I will admit this was very discouraging, and my efforts might have stopped here; but realizing that success may follow failure if effort be often repeated, I set about my task with renewed energy. Later on, in the summer I prepared a letter which I sent to each President of a County Society, urging him to discharge his duty in every respect, to keep a close watch over the Board of Censors, Health Officers, and, in fact, the whole Society; to encourage the members, and induce those doctors who were not members to become so; and to insist on all becoming active workers. I further begged him to reply to this letter, and freely express his views as to the present condition and future welfare of his Society. The same result was obtained, and out of the thirty-two counties only four replies came to reward my labor.

When a medical student I was talking one day to a friend who had quite a large correspondence. I asked him if he had any trouble in getting replies to his inquiries. He replied: "No, never; unless I have to write to one of these d—d doctors." I thought he was guying me, but now the truth of his remark appeals most forcibly; doctors are, beyond a doubt, the most unsatisfactory correspondents in the world, for the reason that they will not answer a plain question.

I did no more writing until after the first of January, when I prepared two letters in which I asked questions as to the condition of each Society, addressing one of these letters to each President and the other to the Secretary. After writing and re-writing, and writing again, I have at last had the pleasurre of seeing my efforts crowned with a limited degree of success. I learn that in most of the counties there seems to be some improvement, but more especially is this true in the rural districts. The only counties not heard from are Blount, Jefferson and Pickens; and

since they have failed to notify me I am constrained to believe they have either reached a high state of perfection or else care very little for organized medicine.

The results of my labor I herewith submit in detail, beginning with Bibb County and continuing in alphabetical order.

BIBB COUNTY MEDICAL SOCIETY.—From all indications this county is doing fairly well. The society has a membership of nineteen, and holds quarterly meetings, with an average attendance of ten. There are four doctors not members of the society, and one illegal doctor. No active steps have been taken other than to threaten him. Dr. J. S. Moore is Health Officer. His salary is one hundred and twenty-five dollars, and he has discharged his duty very efficiently. There have been four applicants for the practice of medicine, and all received certificates. The Board of Censors has discharged its duty very well, both as a Board of Examiners and as a Board of Health. There are two students from this county attending lectures. One great obstacle to the growth of the society is the distance some of the doctors have to travel to attend the meetings; but regardless of this difficulty the society is doing much better than formerly.

BLOUNT COUNTY MEDICAL SOCIETY.—I suppose this County Society is still going on in the same old way. Not having heard from any of its members, and being unwilling to express an opinion, lest I might misjudge their progress, I will pass them by after expressing the hope that they will awake to their duties.

CALHOUN COUNTY MEDICAL SOCIETY.—The reporters give a glowing account of the interest manifested in this county, and note improvements along nearly all lines. Its condition is most excellent; there seems to be no animosity existing among the physicians, but, on the contrary, everything is congenial and working in harmony; quarterly meetings were held last year with two extra called meetings, at which valuable papers were read and discussed. The Board of Censors is reported a little slack and negligent in the discharge of its duties, and we hope an improvement can be made along this line before the next report. There have been three applicants for examination for license to practice medicine, and all received certificates. The examinations were held in a fair and legitimate manner. Quite an epidemic of smallpox prevailed during the autumn, during which time one hundred and ninety-two cases were reported, one hundred and seventy-two of which were colored, and the remaining twenty, white. The means adopted for its suppression were vaccination and isolation, which

proved most effectual, not a case being reported where the vaccination was successful; the Health Officer of this county reported that he had better results from the points than from the glycerinized lymph in glass tubes.

The Health Officer and Board of Censors did not always agree, but the former discharged his duty fairly well. His salary is two hundred dollars a year. There were a few sporadic cases of scarlet fever and diphtheria, but they were isolated and suppressed.

CHEROKEE COUNTY MEDICAL SOCIETY.—From the information gained, this county seems to be on an average with those of my district, holding quarterly meetings, with a membership of sixteen, and an everage attendance of eight. Dr. H. L. Appleton of Center is Health Officer. His salary is one hundred and fifty dollars. He is an energetic and progressive man, and is no doubt exerting every effort in the discharge of his duties. There are eleven regular practicing physicians in the county not members of the County Society, and three illegal doctors, all three of whom have been reported to the Grand Jury; but that body has failed to indict them. There were two applicants to be examined for license to practice medicine, both of whom received certificates. The Board of Censors has been diligent in the discharge of its duties as a Board of Examiners and Committee of Public Health. There are three students from this county taking second and third year courses of lectures. An epidemic of smallpox prevailed in the early part of last year, but vaccination and isolation succeeded in stamping it out.

CLAY COUNTY MEDICAL SOCIETY.—In this county there seems to be almost no organization and very little interest manifested. This, to a great extent, is caused by the distance the doctors have to travel to get to the place of meeting, and also by the condition of the roads. The society is supposed to have quarterly meetings, but many times not more than one or two members are present. Dr. Thomas Northen is Health Officer. His salary ranges from twenty-five to fifty dollars, being left entirely to the discretion of the Commissioners' Court. He finds it very difficult to collect vital statistics on account of the neglect of phys icians to make reports. I am sorry to report that my information is that the physicians do not conform to the ethical rules which should govern the profession. The Board of Censors has not been punctual in the discharge of its duties. There have been two examinations for license to practice medicine. They were con-

ducted in an irregular manner, but possibly were fairly done.

Only one student is reported from this county, and he is taking the third course of lectures. About six or eight cases of smallpox have been reported, with one death. Dr. Northen had charge of these, and with the assistance of the county authorities succeeded in stamping out the disease. It is to be hoped that the doctors in this county will now renew their interest in organized work, and conduct an active society.

CLEBURNE COUNTY MEDICAL SOCIETY is about keeping abreast with the average County Society of the northern district. It has a membership of fifteen, and holds quarterly meetings, with an average attendance of eight. Dr. H. L. Williams, Health Officer, receives a very small salary. He succeeded fairly well in getting up statistics, but it took a laborious effort, as the doctors neglected to report properly. There are two physicians in the county not members of the society, but no illegal doctors.

There were three applications for examination for the practice of medicine, and two received certificates. The other withdrew from the examination. The Board of Censors has been fairly punctual in holding these examinations, but very slow in returning the papers. There is one student from this county taking his second course of lectures. No smallpox has has been reported.

COLBERT COUNTY MEDICAL SOCIETY.—I have heard nothing from this county except through my friend, Dr. Rand, who left the county early last autumn. I have written several letters to Dr. Blair, President of the society and a counsellor; also to Dr. Thompson, Secretary; but both have utterly ignored my letters. I understand the society is doing little or no good, and very seldom meets, but I hope that through the influence of our District Society, known as the Tennessee Valley Medical Association, we will get this county interested in Society work, and that in the future it will prove a great benefit to our State Association.

COOSA COUNTY MEDICAL SOCIETY.—This society is doing as well as could be expected, considering the distance the doctors have to travel to the meetings. While they had only two meetings last year, four others were called, but had to adjourn for lack of a quorum. They promise to do better next year, and I believe they will, for they are expecting a new railroad, and when completed they can more easily get to the place of meeting.

The Health Officer is an active, energetic man, and does fairly well collecting statistics. His salary is fifty dollars.

The Board of Censors is punctual in its work, and has had one applicant for examination for license to practice medicine These examinations are conducted in a perfectly legitimate manner. There are two students attending lectures from this county.

Between one hundred and fifty and one hundred and seventy-five cases of smallpox were reported last year, with five deaths. Most of the cases were negroes. The disease was promptly suppressed by vaccination and isolation.

CULLMAN COUNTY MEDICAL SOCIETY.—This is one of the foremost societies in the State. While its members are not very numerous, they are good workers, and are steadily growing in numbers. They hold monthly meetings, and these are as well attended as time and distance will permit. No ill feeling exists in this county, and everything works harmoniously. The Health Officer is discharging his duty, and no complaints are made. The Board of Censors has been diligent in the discharge of duty, both as a Board of Examiners and Committee of Public Health. There was one application for examination for license to practice medicine, and a certificate was granted. Two medical students are reported attending lectures from this county. No smallpox is reported in this county.

DE KALB COUNTY MEDICAL SOCIETY is not manifesting the interest it should, and much less interest was taken in the Society work last year than for several years before. I suppose this was due to the almost entire destruction of Collinsville by fire, that town being the most convenient place of meeting. They promise to do better in the future. They hold quarterly meetings, but these are not very well attended; there is a membership of twelve, with an average attendance of six. There are ten physicians not members of the Society, but no illegal doctors. Dr. E. P. Nicholson is Health Officer, and makes a very efficient one. His salary is one hundred and twenty-five dollars. There were two applicants for examination for license to practice medicine, and both were awarded certificates. The Board of Censors is discharging its duty very well. It is punctual enough in holding its examinations, but I am informed that the questions are often too elementary, while at times they are very unfair. No smallpox is reported.

ETOWAH COUNTY MEDICAL SOCIETY is more backward than it should be. Monthly meetings are held. With a membership of nineteen, the average attendance is eight. They held ten meetings last year. Dr. E. T. Camp is Health Officer. His salary is two

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hundred dollars. He is meeting with good success. There are twelve doctors not members of the society, but there are no illegal doctors, and no applicants for examination for license to practice medicine. Two students attend lectures from this county, taking second and third courses. The Board of Censors has been punctual in its duties. This county has had smallpox, but I could not learn its extent nor how it was managed.

FAYETTE COUNTY MEDICAL SOCIETY is in excellent working order and is an example worthy of emulation. The membership is eleven, and only one regular doctor is not a member. Also one Eclectic. There are no illegal doctors. They have regular quarterly meetings, at which papers are read and cases reported and discussed. There is also an occasional called meeting. There were five meetings last year, with an average attendance of six.

Dr. R. M. Seay is Health Officer. His salary is one hundred dollars. He is an energetic worker and succeeds fairly well in collecting vital and mortuary statistics. There were three applicants for certificates to practice medicine, and all were successful.

The Board is punctual in its work, and tries to give fair examinations. There are four medical students from this county, all of whom are second year men. La grippe was quite prevalent there last spring and caused a number of deaths. Malarial fevers were worse than known in years; supposed to be on account of the excessive rains and heat. There was quite an epidemic of scarlet fever, but this is now under control. Smallpox developed in several places in the county, but by prompt action on the part of the medical and county authorities, they have been able to control it. Whenever the authorities have assumed control the spread of the disease has ceased abruptly. The infection came from outside counties.

FRANKLIN COUNTY MEDICAL SOCIETY has a membership of sixteen, and is supposed to hold monthly meetings, although they are very irregular and have a very small attendance, from lack of interest. There have been four examinations for license to practice medicine, and at the time of my information one applicant had received a certificate, one was standing his examination, and the other two, after making application, had not come up. My reporter was afraid that they would not appear, but were practicing without license. The Board of Censors is very slack in the performance of its duties, and too often slow in propounding the questions and holding the examinations. Dr. J. K. Clarke is Health Officer. His salary is seventy-five dollars a year.

I do not know how he is discharging his duty. This county had about twenty-five cases of smallpox last spring, but it was stamped out by vaccination and isolation.

JACKSON COUNTY MEDICAL SOCIETY has a membership of ten. The society met monthly until this year, but only meets quarterly now. Four meetings were held last year. An unusual amount of sickness, together with the long distance to travel, were the causes of so few meetings. The average attendance was six. Dr. J. W. Knowlton is County Health Officer, and receives a salary of one hundred and fifty dollars. He is an energetic, competent man, and succeeds well in collecting vital statistics. There are twenty-five regular practicing physicians in the county, and I am sorry to say two or three illegal doctors. The society has often tried to stop these law-breakers, but the officers and juries fail to punish them. Five applicants were examined for practice of medicine in 1900, of whom three passed and two failed. The Board of Censors is punctual in holding meetings and grading examination papers, and gives fair, practical questions. One young man from this county is studying medicine, and is on his third course. The prevailing disease last year was malarial fever of different types, with an unusually large number of cases of pneumonia from January to April.

JEFFERSON COUNTY MEDICAL SOCIETY is, I suppose, the banner county of the State, with a membership larger than any other three counties combined; but they have either been too much engrossed with their own affairs to notice my letters, or else they were swept away in the storm. I rather apprehend the latter calamity, for I believe nothing else could have deterred our honored President from giving us some insight into their condition. I have written in all about two hundred letters to this county at an expense of about five dollars, but have failed utterly to receive a single reply. I trust, however, this society is accomplishing much good.

LAMAR COUNTY MEDICAL SOCIETY is in the same old rut. There is no improvement, and it seems there never will be; for the doctors do not work in unison. They will not attend their Society, and seem to care very little for organized medicine. Dr. W. F. Elliott is Health Officer, and has a very hard time getting the vital and mortuary statistics. No smallpox or epidemic diseases are reported. There have been four examinations for license to practice medicine and all the applicants received certificates.

The Board of Censors is doing only fairly well. We hope the doctors of Lamar will some day awaken to the duties of the loyal physician. I have received later information from Drs. Hollis and Kennedy to the effect that the condition of Lamar county is less unfavorable than at first reported.

LAUDERDALE COUNTY MEDICAL SOCIETY seems to be one of the lagging societies in the northern district. It is about time we were having a revival there and I hope to hear of it very soon. The Health Officer is doing very little good, and seems to have crossed swords with the Censors. There have been no applicants for examination for license to practice medicine. The Board of Censors is doing little or no good. They have had about thirty cases of smallpox, but I am not informed how the disease was treated. One medical student attends lectures from this county.

LAWRENCE COUNTY MEDICAL SOCIETY has a membership of fifteen, and usually holds quarterly meetings. They had only two meetings last year, however, because the doctors took so little interest; the average attendance is six. Dr. Willam I. McMahon is Health Officer. His salary is one hundred dollars. He labors under great difficulties, for he cannot get the doctors to report. All the regular physicians are members of the Society, and there are but two illegal doctors, one of whom was prosecuted, but he was not convicted. The Board of Censors does very good work. There are two medical students from this county. Five cases of smallpox were reported, but it was held in check by vaccination and isolation.

LIMESTONE COUNTY MEDICAL SOCIETY has always been an enigma. While they have some excellent men, they seem to take very little interest, and it has been impossible for me to get a correct report, although I made an earnest effort. I suppose my informant mistook me for the Secretary of the State Association, as he sent me a revision of the roll, which I handed to the Secretary, but no dues accompanied said roll. This Society does not meet oftener than once in two years, and then only three or four are present out of a membership of fifteen. There is one illegal doctor, but no steps have been taken to prosecute him. The reporter mentions one application for examination for license to practice medicine, and five medical students from this county. Dr. N. D. Richardson is Health Officer. His salary is one hundred and twenty-dollars. Limestone has had quite an epidemic of smallpox in the eastern part of the county. Nothing was done to check it until

it spread so rapidly that it was nearly beyond control. After a while the authorities took charge and vaccinated most of those who had escaped. Nearly all the cases, however, were among the negroes.

MADISON COUNTY MEDICAL SOCIETY is in better condition than any other County Society I have heard from in my district. It has had twelve regular meetings, with twenty-nine members in good standing, and with an average attendance of twelve. The members take great interest in the Society and have a paper at nearly every meeting, which is fully discussed; they also report many cases of interest to the profession. This Society, at a called meeting in December, 1900, organized the Tennessee Valley Medical Association with a membership of forty. It was the intention of this Association to visit different counties in this district for the purpose of getting up enthusiasm among the doctors, thereby building up the County Societies. The Board of Censors has examined four applicants for license to practice medicine. This board is very active in looking up the illegal doctors and giving notice to them to appear before the Board. They have been very diligent in looking after smallpox, though they had considerable trouble with the County Commissioners in getting control of matters. This Board tenders its thanks to our efficient State Health Officer for services rendered during the controversy with the Commissioners. Dr. W. C. Wheeler is Health Officer. His salary is two hundred dollars, and he is doing excellent work. There are twenty-three doctors in this county not members of the Society, but there are no illegal doctors. There are two medical students from this county. This county has been infested with Osteopaths lately, but two of them have departed to parts unknown; however, we still have a school of Magnetic Healers and Osteopaths combined.

MARION COUNTY MEDICAL SOCIETY has a good organization with a membership of fourteen. Quarterly meetings are held, with an average attendance of nine. A committee waited on the County Commissioners, but failed to secure a salary for Dr. J. R. Burleson, the Health Officer. He has not collected the vital statistics; it seems he failed to apply for blanks. There is only one illegal doctor, and he has been reported, but to no effect. There were two applicants for examination for license to practice medicine, and both received certificates. Also one certificate was granted to Dr. J. H. Stone, who lives in Mississippi, without examination, for the reason that he had just received one from the Mississippi

Board. The Board of Censors is very punctual. Five medical students are reported from this county.

MARSHALL COUNTY MEDICAL SOCIETY has made no improvement since last year. Some of the doctors try to hold regular meetings, but the others will not attend; as they have so often been disappointed by not having enough present to hold a meeting. Dr. S. M. Elrod is Health Officer. His salary is forty dollars. It is to be feared that he neglects his duty, as his report is incomplete. There were eight applicants for examination for license to practice medicine, and all received certificates. The Board of Censors is very lax in the discharge of its duties. Some of the members are slow, and leave all the work to the others; and as a Committee of Public Health they amount to nothing. Three medical students from this county are taking their third course of lectures. There was some smallpox last winter, but it was kept under control.

MORGAN COUNTY MEDICAL SOCIETY is also on the decline. It meets about once a year. Other meetings are sometimes called, but the doctors do not attend. Dr. S. L. Rountree is Health Officer, but I am uninformed as to his success. There were four applicants for examination for license to practice medicine reported, all of whom received certificates. I could hear nothing from the Board of Censors. Decatur, a thriving town, is located in Morgan County, and there is no reason why they should not have a flourishing Society at that place, as it contains some most excellent men.

PICKENS COUNTY MEDICAL SOCIETY has not yet been heard from, but having much confidence in the old adage "still water runs deep," I am sure it is flourishing.

RANDOLPH COUNTY MEDICAL SOCIETY.—There is a lack of interest among the doctors of this county but judging from my information we can hope for some improvement, and perhaps for a live Society. They have a membership of twenty-one, and hold quarterly meetings; five meetings were held last year with an average attendance of ten. Dr. G. P. Trent, Jr., is Health Officer, and is a young man of push and energy. He will no doubt make an effort to do his duty. His salary is only seventy-five dollars. There are two regular physicians in the county who are not members of the Society; illegal doctors are a thing of the past. Have had only one applicant for examination for license to practice medicine and the Certificate was refused. The Board of Censors is doing its full duty and should be an example for others. Two students from this county attending lectures.

SHELBY COUNTY MEDICAL SOCIETY.—From all indications this Society is far above the average of the district. It is doing good

work and making steady improvement. It has a membership of sixteen and holds monthly meetings; eight very interesting meetings were held last year. There are seven doctors who are not members of the Society in the county. Dr. J. H. Gunn is Health Officer. His salary is one hunlred and fifty dollars. He has had good success and is in every way a model officer. There were three applicants for examination for license to practice medicine. Two received certificates and one was rejected. The Board of Censors is up to date, discharging its duties punctually. There are four students of medicine from this county. Some smallpox has appeared but was soon checked by the Health Officer.

ST. CLAIR COUNTY MEDICAL SOCIETY is in better condition than it has been for the past ten years. The doctors are taking more interest; it has eighteen members with an average attendance of from eight to ten, while there are only three non-members in the county and these promise to join at the next meeting. Their meetings are quarterly, though they only held two meetings last year. The weather was so disagreeable the other times that the doctors could not attend. A brotherly feeling prevails throughout the county and every thing works smoothly. Dr. J. W. Ash is Health Officer, with no salary. He is having excellent success, considering the circumstances. When the doctors do not report he returns them to the Grand Jury. They have no illegal doctors. The Board of Censors is giving perfect satisfaction. Only one applicant for license to practice medicine has appeared and he was granted a certificate. There are two medical students from this county. Forty or fifty cases of smallpox were reported last year, but the disease was soon stamped out by an earnest effort on the part of the Health Officer.

TALLADEGA COUNTY MEDICAL SOCIETY is characterized by a spirit of good fellowship and a great degree of scientific interest. It had an annual banquet in January, at which time sorrows and disappointments were drowned in revelry and feasting. It has a membership of twenty-seven, with an average attendance of seventeen. Dr. W. G. Harrison is Health Officer. His salary is three hundred dollars, but he is required to treat paupers isolated in the pest house. He has had moderately good success. There are two men in the county claiming to possess and use specific applications for the relief of cancers and tumors; one of these was prosecuted but was not convicted. The Board of Censors is discharging its full duty. One student from the county is attending the first course of lectures. There has been ten or twelve cases of smallpox but it was not allowed to spread.

TALLAPOOSA COUNTY MEDICAL SOCIETY has a membership of twenty-four, three having joined recently. It has always met quarterly until last year, when there were only two meetings, with an average attendance of twelve. In January of this year they held a very enthusiastic meeting and elected new officers, and hope to do much better in the future. Dr. A. L. Harlan is Health Officer. His salary is one hundred and fifty dollars. The doctor has been Health Officer for the past five years and has had very good success in collecting statistics and promptly suppressing diseases. There are only five practicing physicians in the county not members of the Society, and three of these have made application for membership. There are no illegal doctors. They had one last year but a true bill was sufficient to get rid of him. The Board of Censors has not been as prompt as it should be in the discharge of its duties, but is composed of competent men and will do better in the future. One student from the county is attending his third course of lectures. There was an outbreak of smallpox at Alexander City, but it was limited to negroes and was soon checked. They have had sporadic cases of scarlet fever in the western part of the county for more than three years, and have also had an epidemic of measles and whooping-cough with other usual diseases.

TUSCALOOSA COUNTY MEDICAL SOCIETY is in a favorable condition. The members manifest considerable interest in building up the Society and raising the medical standard of the county. It has a membership of nineteen and now meets twice a month, on the first and second Mondays; six meetings were held last year with an average attendance of seven. Dr. R. Neilson is Health Officer. His salary is twenty dollars per month. He has been very successful in collecting vital statistics and makes an excellent officer. There are fifteen physicians in the county not members of the County Society, and two illegal doctors. The Society has taken action to prosecute them. There were three applicants for examination for license to practice medicine, and all received certificates. Some of the members of the Board of Censors have not been as punctual in holding the examinations and grading papers as they should be. There are four medical students from this county. There have been quite a number of cases of smallpox throughout the county, but it seems they have it under control.

WALKER COUNTY MEDICAL SOCIETY has a membership of nineteen, with seven doctors not members. Their rule is to hold

monthly meetings, though often they fail to have a quorum, and last year only three meetings were held, with an average attendance of seven. Dr. A. M. Stovall is Health Officer. His salary is three hundred dollars. He has had good success. Two illegal doctors are reported, one of whom was prosecuted and left the county; the other will be returned to the next Grand Jury. Only one applicant for examination for license to practice medicine is reported and his papers have not been returned. The Board of Censors is doing fairly well. Five medical students from this county are reported, and about ninety cases of smallpox.

WINSTON COUNTY MEDICAL SOCIETY.—There is no improvement in this Society. Quarterly meetings are held, with very good attendance. The Health Officer tries to discharge his duty, as does also the Board of Censors. There were four applicants for examination for license to practice medicine and all received certificates. There are three medical students from this county taking their first course of lectures. There are no illegal doctors in this county. They had a few cases of smallpox but it received no attention. We hope for a general revival of interest very soon.

In these thirty-two counties there are nine hundred and fifty regular practicing physicians, five hundred and eighty of whom are members of the Medical Societies of their respective counties; while three hundred and seventy are not thus affiliated. In other words thirty-nine per cent of the medical profession in my district take no interest in the great medical and sanitary work which this Association and the County Societies have instituted. This is a condition that by no means speaks well for the profession and we should go to work to secure the co-operation of these gentlemen. It is most necessary and desirable. If we could present a solid phalanx against the quacks who are invading us from all sides, such would prove a formidable barrier against further encroachment and would aid greatly in the intellectual and moral advancement of the medical profession.

In this district sixteen men are practicing without license. In most cases, some steps have been taken against them but in the majority of instances the proper effort was not made, and we all know this should not be so. Fifty medical students have been reported. Sixty-four applications for examination for license to practice medicine were made, and of this number only four applicants were rejected. This was either an exceptional body of applicants or else some one failed to discharge his duty. Right here, if the Association will excuse me, I will suggest that we have a

standard, or at least some definite requirements; for while some counties are strict enough, giving equitable and proper questions, others are too lax, the questions being irregular and too elementary. It is a disgrace to the profession that certificates are sometimes given when not deserved, and to men who are incompetent to practice medicine.

No longer ago than last year one of these quacks came to our county and set up his shop. The Secretary of the Board of Censors waited on him to see by what authority he was practicing. He referred us to the records, and to our surprise we found a certificate issued by the Board of Censors of one of the other counties of the State.

Another instance will serve to illustrate the need of a standard. An applicant was rejected in Jefferson County last spring. He moved to a county in the northern part of the State, stood an examination and practiced for about six weeks, and then returned to Jefferson a full fledged physician. Upon investigation I find some of the counties have a certain definite and specific lot of questions that they have given for a number of years. These are widely circulated and of course it is no trouble for an applicant to pass the examination after securing these. Such little incidents serve to show us our needs as well as why we are so far below the standard. It is our duty to rectify this evil and I would suggest as a relief that the applicant make application to the Board of Censors and stand his examinations as formerly. Then let the papers be sent to the State Board and give it the power to regrade if graded too low or too high; and if unfair questions are asked or if those asked are too elementary let the State Board order the Board of Censors to regrade or re-examine the applicant as it sees fit.

The report of the Secretary, Dr. G. P. Waller, of Montgomery, was next called for.

Dr. W. H. Sanders stated that he had been informed that a train on which the Secretary should have arrived before this time was greatly delayed, and moved that on account of the absence of the Secretary the hearing of the report be postponed; but that after having been rendered it shall appear in its usual place in the published volume of Transactions. The motion was adopted.

SECRETARY'S REPORT 1901.

Owing to the long and desperate illness of my mother, who is nearing the end of her 74th year, and having to occupy two positions (that of an only son, and of physician in charge of the case), and having to take her to New York and not being able to get home until the night of April 12th, I am compelled to submit to the Asscoiation what might be termed a "Skeleton Report." In it I will state only facts and these as succintly and briefly as possible. I will revise the report before publication and submit it to Dr. Sanders for approval.

The work of the Secretary is increasing every year and more of his time is being demanded and the position of Secretary is by no means a sinecure.

In 1898, when I succeeded Dr. Jordan as Secretary, the Secretary had to send out blank reports to 66 county societies and send an annual circular to the 1,100 members of the Association.

That year it was required of the Secretary to still send the circulars and also a program to each member of the County Societies. At the meeting held in Montgomery, 1900, a resolution was adopted instructing the Secretary to have printed in pamphlet form the report of the Board of Censors, and mail a copy to each physician in the State.

A resolution was also adopted that the Secretary should also have a label printed to be pasted on the back of Transactions of 1898, stating that this volume contained Perry's Index. Since the meeting of 1900, the Secretary has directed and mailed:—

2,300 copies of report of Board of Health.
1,200 Annual Circulars.
1,300 Programs.
66 Blanks for County Reports.

5,866.

We also had a thousand labels printed and put one on each volume of Transactions sent to members.

Early in March he made arrangements with the Southeastern Passenger Association for the usual rates, full fare to Selma and 1-3 fare return, if certificate is signed by Secretary.

The average correspondence of this office is from 2 to 5 letters daily.

Put correspondence at 1,000 letters.

Circulars, reports and programs, 6,000. In all 7,000 which the Secretary will have to direct and mail. This is an enormous task and takes a great deal of time.

The Secretary is also Chairman of the Publishing Committee and has to prepare all the copy for the printer, read and correct all the proof (except report of Board of Censors, which State Health Officer, W. H. Sanders, M. D., prepares and reads and corrects proof of the Report of Board of Censors) and also corrected and revised all papers that were published in Transactions of 1900. This is an immense job and takes a great deal of time. It was a big relief to the Secretary.

The reports from the County Societies have been very slow in coming in and the inclination to put it off till the last minute seems to be increasing. Owing to my absence from the city and the accumulation of clerical work in my office, I have paid the sum of $12.50 for clerical assistance. I ask the Association to allow this claim.

In making my preparations on Monday night, I found that the old canvass box which contained the records of the Association, was in too bad a condition to be used, as I do not think it would carry the books safely. Not having time to make other arrangements, I left these records. These books are writen nearly up to date and the record will be completed before June 1st.

Badges for this meeting were also bought and are in the hands of Dr. Perry for distribution. Respectfully,

G. P. WALLER, M. D.,
Secretary.

The report of the Treasurer, Dr. H. G. Perry, of Greensboro, was next in order, and was submitted as follows:

REPORT OF THE TREASURER.

Henry Gaither Perry, M. D., Treasurer, in account with the Medical Association of the State of Alabama, from April 17th, 1900, to April 16th, 1901.

RECEIVED FROM GRAND SENIOR COUNSELLORS.

Baldwin, B. J.	$ 10 00
Bragg, Shirley	10 00
Brockway, D. S.	10 00
Cason, D. E.	10 00

Dewees, T. P.....	10 00
Fletcher, R. M....	10 00
Franklin, C. H....	10 00
Goggans, J. A.....	10 00
Goode, Rhett	10 00
Goodwin, J. A....	10 00
Harlan, J. J....	10 00
Hill, L. L....	10 00
Huggins, J....	10 00
Inge, H. T.....	10 00
Jay, Andrew	10 00
Jones, C. C.....	10 00
Kendrick, J. C.....	10 00
Legrand, J. C....	10 00
Lowry, S. H....	10 00
Maréchal, E. L....	10 00
Nolen, A. J....	10 00
Redden, R. J....	10 00
Robertson, T. L....	10 00
Searcy, J. T....	10 00
Sholl, E. H....	10 00
Sledge, W. H....	10 00
Stovall, A. M....	10 00
Thetford, W. F....	10 00
Trent, P. G....	10 00
Whaley, Louis....	10 00
Wheeler W. C.....	10 00
Wilkerson, W. M....	10 00
Wilkerson, C. A....	10 00
Total Number, 33. Total amount	$330 00

RECEIVED FROM SENIOR COUNSELLORS.

Andrews, Glenn	$ 10 00
Bell, W. H....	10 00
Blake, W. H....	10 00
Bondurant, E. D....	10 00
Brown, Geo. S....	10 00
Cameron, M. B....	10 00
Coley, A. J....	10 00
Cunningham, R. M....	10 00
Davis, W. E. B....	10 00
Desprez, L. W....	10 00

Duggar, R. H....	10 00
Frazer, T. H....	10 00
Gay, S. G....	10 00
Harper, R. F....	10 00
Heflin, Wyatt	10 00
Hill, G. A....	10 00
Hunter, H. M....	10 00
Howle, J. A....	10 00
Johnston, L. W....	10 00
King, Goldsby....	10 00
McCants, R. B....	10 00
McLaughlin, J. M....	10 00
Moody, H. A....	10 00
Moon, W. H....	10 00
Parke, T. D....	10 00
Perry, H. G....	10 00
Quin, W. E....	10 00
Riggs, E. P....	10 00
Sutton, R. L....	10 00
Swan, J. C....	10 00
Williams, J. H....	10 00
Watkins, I. L....	10 00
Whitfield, B. W....	10 00
Wilkinson, J. E....	10 00
Total No. 34. Total paid $340 00	

RECEIVED FROM JUNIOR COUNSELLORS.

Bancroft, J. D.... ....$	10 00
Brannon, H. L.... ..., ...	10 00
Bennett, B. F....	10 00
Dixon, J....	10 00
Dryer, T. E.....	10 00
Gaston, J. L....	10 00
Guice, C. L....	10 00
Graham, W. A.....	10 00
Harlan, A. L....	10 00
Harrison, W. G....	10 00
Henderson, S. C....	10 00
Henley, A. T....	10 00
Hill, R. S....	10 00
Jones, Julius	10 00
Jones, E. S....	10 00

Justice, O. S....	10 00
McCain, W. J....	10 00
McEachern, J. A....	10 00
Pearson, B. R....	10 00
Pride, W. T.....	10 00
Robinson, T. F....	10 00
Sims, A. G....	10 00
Waller, G. P....	10 00
Welch, S. W....	10 00
Whitfield, J. B....	10 00
Wyman, B. L....	10 00
Total 26. Paid	$260 00

RECEIVED FROM COUNSELLORS-ELECT.

Ard, E. B....	$ 5 00
Green, Henry	5 00
Justice, R. L....	5 00
Lawrence, W. J. D....	5 00
Maples, W. C....	5 00
Robertson, W. H....	10 00
Tam, S. S....	10 00
Thigpen, C. A....	10 00
Total 8. Total amount	$ 55 00

RECEIVED FROM DELEGATES TO MONTGOMERY SESSION.

Autauga	....
Baldwin—J. H. Hastie	5 00
Barbour—W. G. Lewis	5 00
J. L. Houston	5 00
Bibb—M. C. Schoolar	5 00
Blount	....
Bullock—F. P. Dixon	5 00
T. J. Dean	5 00
Butler—Henry Green	5 00
Calhoun—J. M. Whiteside	5 00
J. C. Brock....	5 00
Chambers	....
Cherokee—A. C. Shamblin	5 00
Chilton	....
Choctaw	....
Clarke	....

Clay	....
Cleburne—S. L. Block	5 00
Coffee—P. T. Fleming	5 00
Colbert	....
Conecuh—J. N. Mixon	5 00
Coosa—J. C. Cousins	5 00
Covington	....
Crenshaw—J. R. Horn	5 00
Cullman	....
Dale—E. B. Ard....	5 00
Dallas—W. H. Taylor	5 00
D. B. Edwards	5 00
DeKalb	....
Elmore—W. A. Huddleston	5 00
Escambia—W. L. Abernathy	5 00
Etowah—W. J. D. Lawrence	5 00
Fayette—J. G. Smith	5 00
Franklin	...
Geneva—R. L. Justice	5 00
Greene	....
Hale—J. P. Borden	5 00
Henry—M. S. Davis	5 00
Jackson—W. C. Maples	5 00
Jefferson—W. H. Wilder	5 00
C. Wilson	5 00
Lamar—D. C. Morton	5 00
Lauderdale	....
Lawrence—B. F. Etheridge	5 00
Lee—W. B. Watkins	5 00
Limestone	....
Lowndes—Frank Shackleford	5 00
Macon—P. Reynolds	5 00
J. T. May	5 00
Madison	....
Marengo—J. R. Goodloe	5 00
W. C. Lockhart	5 00
Marion—W. R. Goggans	5 00
Marshall	....
Mobile—P. J. M. Acker	5 00
W. T. Henderson	5 00
Monroe—W. J. Mason	5 00
J. M. Higgins	5 00

Montgomery—J. M. Sadler	5 00
R. Goldthwaite	5 00
Morgan	....
Perry	....
Pickens	....
Pike—J. W. Robertson	5 00
Randolph	....
Russell—T. A. Johnson	5 00
Shelby—D. L. Wilkinson	5 00
St. Clair	....
Sumter—J. N. Gilmore	5 00
Talladega	5 00
Tallapoosa—H. S. Bruce	5 00
Tuscaloosa—S. T. Mayfield	5 00
Walker—S. G. Gilder	5 00
Washington	....
Wilcox	....
Winston—A. S. Palmer	5 00
Total from delegates	$255 00

DOLLAR DUES RECEIVED FROM COUNTY SOCIETIES:

Autauga	5 00
Baldwin	4 00
Barbour	13 00
Bibb	9 00
Blount	....
Bullock	16 00
Butler	2 00
Calhoun	21 00
Chambers	7 00
Cherokee	10 00
Chilton	4 00
Choctaw	6 00
Clarke	....
Clay	....
Cleburne	9 00
Coffee	11 00
Colbert	7 00
Conecuh	13 00
Coosa	9 00
Covington	....
Crenshaw	8 00

Cullman	13 00
Dale	9 00
Dallas	18 00
DeKalb	....
Elmore	13 00
Escambia	7 00
Etowah	17 00
Fayette	6 00
Franklin	....
Geneva	3 00
Greene	....
Hale	12 00
Henry	10 00
Jackson	9 00
Jefferson	91 00
Lamar	7 00
Lauderdale	7 00
Lawrence	7 00
Lee	....
Limestone	....
Lowndes	7 00
Macon	6 00
Madison	22 00
Marengo	14 00
Marion	6 00
Marshall	2 00
Mobile	26 00
Monroe	5 00
Montgomery	39 00
Morgan	....
Perry	10 00
Pickens	....
Pike	8 00
Randolph	19 00
Russell	4 00
Shelby	8 00
St. Clair	9 00
Sumter	11 00
Talladega	14 00
Tallapoosa	4 00
Tuscaloosa	14 00
Walker	9 00

Washington	8 00
Wilcox	....
Winston	4 00
Total from 54 County Societies	$632 00

MISCELLANEOUS RECEIPTS.

Dr. M. R. Seay, Berry Station, for Transactions.....	1 00
Dr. S. E. Winnemore, for Transactions.....	1 00
Dr. A. A. Kirk, for Transactions	1 00
Total	$ 3 00

RECAPITULATION.

To Balance on hand last report.....		$1,442 03
To Annual Dues from 93 Counsellors.....$	930 00	
To Annual Dues from 8 Counsellors-elect....	55 00	
To Annual Dues from 54 County Societies....	632 00	
To Annual Dues from 51 Delegates.....	255 00	
To Miscellaneous receipts	3 00	— 1,875 00
Total		$3,317 03

DISBURSEMENTS.

By Geo. P. Waller, salary as Sec.....$	250 00	
To expenses Montgomery Session.....	69 65	
To A. H. Montgomery, Assistant Sec.....	20 00	
To Geo. S. Waller, Contingent fund.....	16 65	
To Mailing report Board Censors.....	27 50	
To Brown Printing Co., Transactions, etc.....	1,287 65	
To Telegram Dr. Sanders ac. Morris failure....	32	
To W. A. Graham, Counsellors fee returned....	10 00	
To Geo. P. Waller for badges Selma Session....	17 00	
To H. G. Perry, salary and stamps	110 00	— 1,808 77
Balance on hand		$1,508 26

All the Counsellors have paid their dues. One Counsellor-elect, Dr. W. W. Watson, did not accept the position.

Dr. A. J. Coley, reported last year as having failed to pay dues, had paid, an error was made. His name has been reinstated on roll by order of Board of Censors.

The report of the Publishing Committee was then announced as in order.

Owing to the non-arrival of Secretary Waller, who is Chairman of the Publishing Committee, the rendering of this report was necessarily postponed.

REPORT OF THE PUBLISHING COMMITTEE.

(Although submitted on the last day of the session, it is printed here in its usual place.)

To the President and Members of the Medical Association of the State of Alabama:

We beg leave to submit the following report:

Eleven hundred and fifty copies of the Transactions of the last meeting of this Association were printed and distributed at a cost of $1,170.88.

The volumes were distributed as follows:

To 18 Grand Senior Life Counsellors, 2 vols. each	36
To 100 Counsellors, 2 volumes each	200
To 47 delegates, 2 volumes each	94
To 630 members of county Societies, one volume each	630
To 9 correspondents, one volume each	9
To Reorganization Committee of American Medical Association (upon request)	4
To Medical College Libraries, Medical Registers, and U. S. Government	10
To Secretary's Office	2
To Newspapers of Alabama	28
To Members-elect of General Assembly	37
To Alabama Historical Society	1
To Dr. C. A. L. Reed, President American Medical Association	1
To N. Y. Academy of Medicine	1
Miscellaneous	13
Deposited in Office State Board of Health	84
Total	1,150

The Committee regrets to state that the volume was unusually late in being issued from the press. Delays occurred which could neither be foreseen nor prevented. The causes of delay will not be elaborately stated, but the Committee will endeavor to profit by the experience acquired and hopes to be able to have the next volume published much more promptly than the last was done.

G. P. WALLER, M. D., Chairman.
W. H. SANDERS, M. D.,
J. C. LEGRAND, M. D.,
Committee.

All of the above reports were, under the rules, referred to the Board of Censors.

Reports of special committees were then called for, but none were submitted.

Under the head of miscellaneous business, Dr. Harper, of Selma, moved that the order of exercises, as announced in the programme, be changed, and that instead of an evening session an afternoon one, beginning at four o'clock, be held. He explained that this change would permit the members of the Association to attend an entertainment to be given at the Opera House tonight. He expressed the opinion that some recreation should be mixed with work and that the members would enjoy the entertainment.

Dr. Gay, of Selma, stated that the manager of the entertainment had declined to make any concessions as to admission fees to members of the Association, notwithstanding the fact that if the proposed change in the programme should be made, very likely, a large number of the visiting doctors would attend.

He insisted that this indisposition on the part of the management to be generous to the doctors should be understood. He furthermore notified the members of the Association that an invitation is extended them to witness a game by the Selma Baseball Association during the afternoon, which would no doubt afford them some amusement.

Dr. Sanders said that the reasons assigned by the author of the motion (Dr. Harper) for changing the order of exercises on the programme appeared to him wholly inadequate, and he expressed the hope that the members would prefer to adhere to the programme, as printed, and that they would refuse to vary it for an amusement of the kind proposed. After some further debate, the motion of Dr. Harper was defeated.

EVENING SESSION.

Call to order by the President at 8:10 p. m.

The President announced as the first order of business: The Address of the Historian, who for this occasion is Dr. J. W. Palmer, of Opelika. The President stated that information had been received from Dr. Palmer that he was unavoidably prevented from being

present, but had sent the manuscript of his address. The President then appointed Dr. E. L. Maréchal, of Mobile, to read the address, which he did.

(For published address see Appendix).

Dr. S. G. Gay asked permission to interrupt the regular order and moved that all visiting physicians present be accorded the privileges of the floor.

Dr. Sanders asked that the names of the visiting physicians included in the motion be announced to the Association, whereupon, Dr. Gay mentioned the name of Dr. Michael Hoke, of Atlanta, Ga. Dr. Gay's motion was adopted.

The President then announced that the next regular order was the reading and discussion of the Regular Reports, and suggested that some rule as to time allowed for discussion should be adopted. After some debate, it was moved by Dr. Maréchal that in the discussion of papers the speakers be limited to five minutes each. Adopted.

Dr. Bankston, of Birmingham, presented the first regular report, the subject being: The Future Outlook of Medicine Is Toward Prevention. The subject was discussed by Drs. LeGrand, Purifoy, Camp, Sanders, Casey, Starr, Moon, and Parker, Dr. Bankston closing the discussion.

(For the published paper and discussion thereon see the Appendix of Medical and Sanitary Dissertations and Reports).

Dr. M. B. Cameron, of Sumterville, presented the next report, subject: Pernicious Vomiting in Pregnancy.

Discussed by Drs. Ward, Harrison, McCain, and Copeland. Dr. Cameron closed the discussion.

(For the published paper and discussion thereon see the Appendix of Medical and Sanitary Dissertations and Reports).

The next report was by Dr. A. M. Stovall, of Jasper, on: The Therapeutic Uses of Water.

After the completion of this report, the hour being late, Dr. Gay moved that the Association adjourn. Adopted.

SECOND DAY—WEDNESDAY, APRIL 17TH.

MORNING SESSION.

Call to order by the President at 9:15 a. m.

Under unfinished business the discussion of Dr. Stovall's paper was announced as the first order. Paper was discussed by Drs. Nicholson and Sellers.

(For published paper and discussion see Appendix).

The next regular report was by Dr. R. S. Hill, of Montgomery, on: Ovarian Cysts.

During the reading of the paper Dr. Hill exhibited a number of beautiful specimens of cysts, in alcohol, which he had removed from patients by operation.

After the completion of Dr. Hill's paper Dr. Gay called attention to the fact that at a later period in the order of exercises Dr. J. A. Goggans, of Alexander City, would present a paper on the same subject and, believing that it would be agreeable to the members of the Association to hear Dr. Goggans's paper now, he moved that Dr. Goggans be granted the privilege of reading it at this time, as both papers could then be discussed together. The motion was adopted, whereupon, Dr. Goggans proceeded to read his paper. He, also, exhibited to the members a number of specimens of ovarian cysts, removed by operation.

The papers of Drs. Hill and Goggans were discussed by Drs. Jones, Hudson, Copeland, Harper, DuBose, and Morris, the authors of the two papers, closing the discussion.

(For published paper and discussion see Appendix).

The hour of eleven o'clock having arrived, the President announced that the regular order at this hour is the Jerome Cochran Lecture, which Dr. Osler, of Baltimore, had been invited to deliver. He said that Dr. Osler had not arrived and he had no assurance that he would arrive during the meeting.

Dr. R. S. Hill, offered the following resolution:

Resolved, That should Dr. Osler fail to arrive during the meeting, the President be requested to communicate with him and, if possible, obtain a copy of his Lecture for publication in the volume of Transactions of this meeting. Adopted.

Dr. Waller called attention to the fact that the name of Dr. Hoke, of Atlanta, a visiting physician, now present, appears on the programme for tomorrow and moved that he be granted the privilege of presenting his paper at this time. The motion was adopted.

Dr. Hoke then proceeded to read a very elaborate and scientific paper, accompanied by a number of well-executed illustrations, on: The Pronated Foot.

The paper was discussed by Drs. Copeland, Morris and Rogers, Dr. Hoke closing the discussion.

(For published paper and discussion see Appendix).

The President announced the subject of the next paper to be: Endometritis, its Treatment in the Home, with Report of Cases, by Dr. C. S. Chenault, of Mt. Hope.

Dr. Chenault not being present, and not having forwarded his manuscript, the subject was passed.

Dr. E. B. Ward, of Selma, then read a paper on: Reflex Neuroses in Women.

Dr. Gay called attention to the fact that a paper by Dr. W. T. Eckley, of Chicago, on a kindred subject to that of the one just read is on the programme for tomorrow, but on account of illness, Dr. Eckley could not be present. He had, however, sent his manuscript, which Dr. Gay moved be now read, as time could be economized by discussing that paper and Dr. Ward's together. At the request of the President, Dr. Moody, of Bailey Springs, read Dr. Eckley's paper, the subject being: Medical and Forensic Importance of Reflexes.

On motion, the meeting then adjourned.

AFTERNOON SESSION.

The Association was called to order at 3:10 p. m., by the President.

Under unfinished business President Cunningham spoke in commendatory terms of the two last papers read—those of Drs. Ward and Eckley—and expressed regret that illness had prevented Dr. Eckley from being present and participating in the meeting.

(For published papers see Appendix).

The following communication from Dr. Perry, the Treasurer, was received, ordered to be read, and was referred to the Board of Censors:

Mr. President and Gentlemen of the Medical Association of the State of Alabama:

I have the honor to state that since the adoption of the new method of securing mailing lists for the distribution of the volume of transactions I have not had a single complaint of failure to receive the volume.

In my last annual report I called the attention of the Board of Censors to the fact that there was a surplus of more than a thousand dollars in the Treasury, and suggested that some disposition be made of it. The failure of the banking house of Josiah Morris & Co., in which there was seven hundred and forty-nine dollars and ninety-one cents, has relieved the pressing necessity of such action, but our income exceeds our expenses, hence any surplus there may be on hand lies idle. I would recommend that the Treasurer be authorized, with the consent and approval of the President and Senior Censor, to loan the surplus.

As one of the designated banks of deposit for the funds of the Association has failed, and as there is a National Bank in my home town, Greensboro, I respectfully request that said bank be designated as one of the banks of deposit for the funds of the Association. Such an arrangement would be both convenient and economical, by enabling me to avail myself of the convenience of transacting business through a home bank and also by saving exchange.

Dr. A. J. Coley, of Alexander City, was dropped from the roll of counsellors last year at Montgomery for non-payment of dues. I beg to say that a clerical error led to his being dropped.

It will be remembered that owing to the very unusual flood that prevailed at the time the meeting convened I was unable to reach Montgomery until the third day of the meeting. In the meantime, Dr. Waller, the Secretary, had been appointed temporarily to discharge the duties of Treasurer, and when I arrived I relieved him. In the transfer of accounts that necessarily took place betwixt Dr. Waller and myself the clerical error that led to the dropping of Dr. Coley occurred.

The records show that he had uniformly paid his dues in advance and the series of receipts he exhibited placed the matter beyond dispute. I hope, therefore, that the Association will correct the error made, by re-instating Dr. Coley in the House of Counsellors.

Very respectfully,

H. G. PERRY,

Treasurer.

Dr. L. W. Johnston, of Tuskegee, then read a paper on: Acute Entero-Colitis in Infancy.

Discussed by Drs. Harper and Parke, Dr. Johnston closing.

(For published paper and discussion see Appendix).

Dr. F. A. Webb, of Calvert, next read a paper on: Pathological Conditions Causing Abortion and Premature Labor, with Reports of Cases.

(For published paper see Appendix).

Needed Reforms in the Treatment of Insane Criminals, by Dr. W. G. Somerville, of Tuscaloosa, was the subject of the next paper read.

Discussed by Dr. Cunningham (Dr. Bell in the chair), and by Drs. Moody, Parke, and Harris, Dr. Somerville closing.

(For published paper and discussion see Appendix).

Dr. Judson Davie, of Cowikee, then read a paper on: Mortality in Our Prison Population.

Discussed by Drs. Sellers and Jenkins, Dr. Davie closing the discussion.

(For published paper and discussion see Appendix).

The Association then adjourned.

EVENING SESSION.

At 8:30 p. m. the Association was called to order in the Opera House by President Cunningham, a fair audience of citizens, in addition to the members of the Association, being present.

The Monitor's address was first in order, to deliver which on this occasion, the President introduced Dr. W. E. B. Davis, of Birmingham.

The address engaged the close attention of the audience throughout and elicited frequent applause.

The Orator's Address was next in order, to deliver which, on this occasion, the President introduced Dr. W. Groce Harrison, of Talladega.

Judging from the marked attention and frequent and hearty applause the orator received, the audience must have been highly entertained.

(For the published addresses see Appendix).

The Association was then transferred from the Opera House to the spacious and flower-wreathed dining hall of Hotel Albert, where the visiting members became the welcome guests of the Dallas County Medical Society at long and luxuriant banquet tables. After full

justice had been done to a sumptuous menu, a sparkling flow of wine and of after-dinner wit wound up an occasion that richly justified the guests in unanimously voting the Dallas County Medical Society a most charming and generous host.

Adjournment took place at quite irregular and uncertain hours.

THIRD DAY—THURSDAY, APRIL 18TH.

Call to order at 9:30 a. m., by the President, in the Hall of the Young Mens' Christian Association.

Under the head of unfinished business the following regular reports were called:

The Prevention of Infectious Diseases, by Dr. T. A. Casey, of Albertville. Read by the author and discussed by Drs. Jones (E. A.), Rogers, Coley, and Peters, the author of the paper closing the discussion.

(For published paper and discussion see Appendix).

What is the Best Closure and Dressing in Aseptic Cases? by Dr. Goldsby King, of Selma. Read by the author and discussed by Drs. Hudson, Morris, Peters, Goggans, Cunningham, and Brown, the author of the paper closing the discussion.

(For published paper and discussion see Appendix).

At this point an invitation was extended to the Association by Dr. King to visit his Sanitorium (in Selma), which was accepted.

President Cunningham interrupted the regular order to announce the following Committee on the nomination of Counsellors: Drs. G. A. Hill, of Talladega; L. W. Johnston, of Tuskegee; T. E. Dryer, of Huntsville; M. B. Cameron, of Sumterville; E. B. Ard, of Ozark.

The Microscope in the Hands of the General Practioner, was the subject to be next presented. Dr. G. Heustis Fonde, of Mobile, who was to present this subject, not having arrived, it was informally passed.

The subject of the next paper to be presented was: Peculiar Forms of Malaria, by Dr. H. T. Inge, of Mobile. Dr. Inge not being present and not having sent his manuscript, the subject was passed.

Hydrocephalus, Its Most Logical Theory, and the Operation Based Thereon, was the subject of the next paper to be presented. Dr. H. M. Hunter, of Union Springs, who was to present this subject, not being present, and not having sent his manuscript, the subject was passed.

The Diseases of the Tennessee Valley was announced as the next subject on the programme. Dr. M. W. Murray, of New Decatur, who was to present this subject, not being present and not having sent his manuscript, the subject was passed.

The Climatic Effects in Talladega County on Diseases Common in Alabama was the next subject announced. Dr. S. W. Welch, of Talladega, read a paper on this subject, which was discussed by Drs. Harrison, Sims, Moody, McKittrick, Cunningham, and Robinson, the author of the paper closing the discussion.

(For published paper and discussion see Appendix).

The regular reporters having all been called, volunteer papers were declared in order.

The first of these was read by Dr. E. A. Jones, of Birmingham, subject: The Widal Reaction in Typhoid Fever. Discussion by Drs. Brown, Peters, and Sellers, Dr. Jones closing.

(For published paper and discussion see Appendix).

Dr. S. A. Billing, of Montgomery, read the next paper, subject: Anæsthesia and Anæsthetics. Discussed by Drs. Moody, Peters, and Stubbs, the author of the paper closing the discussion.

(For published paper and discussion see Appendix).

Dr. Judson Davie, of Cowikee, asked and received unanimous consent to offer a resolution. He then read the resolution as follows:

Resolved, That the Committee of Public Health of this Association be and is hereby authorized and instructed to prepare and submit to the next General Assembly a bill for such legislation as will, in the judgment of the Committee, effectually prevent such convicts as are physically unfit to work in mines from being required to perform labor of that kind, and that said Committee shall urge the enactment of such bill into law.

Under the rule, the resolution was referred to the Board of Censors.

The Doctor in Politics was the subject of a paper presented by Dr. J. C. LeGrand, of Birmingham.

Discussed by President Cunningham.

On motion the Association adjourned.

AFTERNOON SESSION.

Call to order at 3 p. m. by the President.

Dr. Waller, the Secretary, read the following letter:

TURLOCK, CAL., 10th April, 1901.

George Platt Waller, M. D., Secretary Medical Association of the State of Alabama, Montgomery, Ala.:

DEAR DOCTOR:

I was put on the Sociological Committee of the Tri-State Society and asked to bring some of the important questions that ought to be considered and handled by medical men before the Medical Association of the State of Alabama at its next general meeting, with the view of seeking the co-operation of that influential body.

I, therefore, send you a paper which gives a forecast of what I believe must ultimately be the ground taken for the extirpation of crime and the *rapid* improvement of the race.

Please give my compliments to Dr. Cunningham and bespeak his co-operation with the Tri-State Medical Association in Sociological science.

What you may do with the paper I do not know, as I am now a non-resident of Alabama and I can not, therefore, urge any claim to personal consideration.

If you can not use the paper at the coming meeting or publish it in the Transactions, may I ask you to kindly return it to me, as I want to be able to show the Tri-State people that I have done my duty as a committeeman according to my lights.

With best wishes to old friends and for the success of the Association, believe me, dear doctor,

Yours very truly,

JOHN E. PURDON.

Motion was made and adopted that inasmuch as Dr. Purdon, the author of the letter just read, was formerly a prominent and valued member of this Association, the communication to which he alludes be referred to the Publishing Committee, with the hope that it will be found practicable to include it with the papers to be published in the volume of Transactions of this meeting.

The Psychology of Suicide was the subject of a paper read by Dr. [illegible] of Birmingham and discussed by Drs. [illegible] and [illegible]. The discussion being closed by the author of the paper.

For published paper and discussion see Appendix.

Dr. J. P. Fletcher, of Selma, then read a paper on: Acid-Toxemia Fevers.

For published paper see Appendix.

Dr. J. H. Edwards, of Wetumpka, read a paper on: Pneumonia in Pregnancy. Discussed by President Cunningham, Dr. Edwards closing.

For published paper and discussion see Appendix.

Next in order was the subject of a paper read by *Dr. C. J. W. Peters, of Birmingham, and discussed by Drs. Harper and [illegible]. Dr. Peters, the author of the paper, closing the discussion.

The meeting then adjourned.

EVENING SESSION.

Called to order at 8 p. m. by the President.

President Cunningham placed the following letter in the hands of the Secretary to be read:

ATLANTA, Ga., April 12, 1911.

To the President and Members of the State Medical Association of Alabama:

In behalf of the Sociological Committee of Alabama, Georgia and Tennessee, we solicit the co-operation of the profession of Alabama in our work. We desire a committee from your Society to work in conjunction with the Tri-State Committee so as to secure uniformity of action in the three States.

It will be the object of the Committee to study the various sociological questions and after due consideration make an effort to secure judicious legislation on such subjects as the committee think best. With a committee studying social problems systematically supported by a united profession in three States and the information to be gained by discussion of these subjects at the Tri-State and each of the State Societies great good can be accomplished for the uplifting of humanity and improvement of the race.

Hoping you will take favorable action on this question and select a committee to represent your State in this work, I am,

Sincerely yours,

R. R. KNOX,

Chairman Tri-State Sociological Committee.

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*As Dr. Peters failed to submit his manuscript to the Publishing Committee it does not appear in the Appendix.

On motion the letter was referred to the Board of Censors.

Influenza, was the subject of a paper presented by Dr. W. W. Harper, of Selma, and discussed by Drs. Waller, Peters, Cameron, Hooper, Duggar, Goggans, Wilkinson, Williams, and Cunningham. Dr. Harper closed the discussion.

(For published paper and discussion see Appendix).

The subject of the next paper on the programme was: Neglected Therapeutics, by Dr. W. H. Sanders. The duties of Dr. Sanders in connection with sittings of the Board of Censors were such as to render it impossible for him to be in the hall, hence the subject was passed.

Dr. G. H. Fonde, of Mobile, having arrived, was granted the privilege of reading his paper, which had been passed over in the regular order. Subject: The Microscope in the Hands of the General Practitioner.

Discussed by Drs. E. A. Jones, DuBose, Cameron, Moody, Hooper, Parker, and Camp, the discussion being closed by the author of the paper.

(For published paper and discussion see Appendix).

The Administration of Anæsthetics was the next subject presented to the Association, which was done by Dr. B. B. Rogan, of Selma.

Dr. Gay, of Selma, then presented the subject: Cocaine Anæsthesia by Lumbar Puncture.

Discussed by Drs. Morris, Parker, and Camp, Dr. Gay closing the discussion.

(For published paper and discussion see Appendix).

Dr. W. H. Hudson, of LaFayette, next read a paper on: Actinomycosis.

Discussed by Drs. Duggar and Parker.

(For published paper and discussion see Appendix).

The meeting then adjourned.

FOURTH DAY, FRIDAY, APRIL 19TH.

Call to order at 9 a. m., by the President.

Dr. G. P. Waller, Secretary of the Association, submitted his Annual Report, which under the rules, was referred to the Board of Censors. Dr. Waller, Chairman of the Publishing Committee, also submitted a report from that Committee. Referred to the Board of Censors.

(These reports will be found printed in their usual place, that is, in the Minutes of the first day.

The Report of the Board of Censors was then announced to be in order. The Chairman of the Board not being in the hall, it was stated that he was busily engaged in his room, at the hotel, in completing the Report.

It was moved and adopted that the Association, while waiting for the report, take a recess of fifteen minutes.

At the expiration of the recess the Association was called to order, whereupon, the Report of the Board of Censors was submitted by Dr. W. H. Sanders, Senior Censor, as follows:

THE TWENTY-EIGHTH ANNUAL REPORT OF THE BOARD OF CENSORS, INCLUDING REPORTS OF THE STATE BOARD OF MEDICAL EXAMINERS AND OF THE COMMITTEE OF PUBLIC HEALTH.

PART I.

The Board of Censors begs to submit this, its Twenty-Eighth Annual Report.

THE PRESIDENT'S MESSAGE.

After mature consideration of such recommendations in the President's message as require action on the part of this Association, the Board unanimously submits the following views thereon:

With the spirit of enthusiasm and of loyalty to our organization which pervades the message of the President, the Board is in full sympathy, and believes that the words of the President—so warmly and well spoken—will strengthen the courage and stimulate the efforts of the members to labor more zealously and fraternally than ever before to achieve the great objects for which we are united. Could every member of the profession in the State become dominated by such a spirit, not only would success be assured, but quickly and completely won. Whilst the Board endorses the message in the respects stated, it feels compelled to take issue with the first specific recommendation therein, which appears in the following words:

"1. That a member in good standing of any County Medical Society in the State may become a member of the Medical Association of the State of Alabama with all the rights and privileges now allowed delegates upon the payment of an annual fee of five dollars.

2. That after being a member and paying dues at the rate of five dollars per annum, for twenty years, he shall become a life member without further payment of dues."

This recommendation seems to proceed from a misapprehension of the attitude which the members of the County Medical Societies now bear to the Association.

Article 5 of Section 3 of the Constitution of the Association reads as follows:

"All members of County Societies which hold charters from the Association shall be members of the Association."

Inasmuch as all members of County Medical Societies in affiliation with this Association are now declared by the Constitution to be members of the Association, it would, clearly, be a work of supererogation to embody a principle in the Constitution which it already contains.

The recommendation, however, proposes to go further than does the Constitution and to confer upon members of County Societies who pay to the Association annual dues of five dollars all of the rights of delegates, that is, in addition to the privileges of the floor, the right of voting, and after the expiration of twenty years to release them from the payment of further dues.

The adoption of this recommendation would not only overthrow one of the fundamental principles that underlie our organization, but would, in the opinion of the Board, operate unfairly and unjustly in practice.

The fact, often overlooked, that this Association is a quasi-legislative body must be kept prominently in mind. In this respect it differs widely from an association of medical men organized solely for scientific and social purposes. Obviously, in an association of the latter kind no distinctions as to membership, and as to the rights adhering thereto, could properly be made, but in an organization such as ours, the reverse is true, that is, when it exercises the high legislative function with which it is endowed by the State, representation in it should be as fixed as in any other legislative body. Not

only so, the representation must be equitably distributed to the different counties of the State. This principle is too obvious and too just to need argument in support of it.

Were the recommendation of the President adopted, an indefinite factor as to membership in a legislative body would be introduced, that is, the number of voting members added might vary anywhere from one to about eight hundred, and should all of the physicians in the several counties become members of their respective societies, the addition of voting members might amount to about fifteen hundred, with a continual increase, as the number of doctors in the State increases. A large proportion of the "legislators" thus added might, and most probably would, come from a few counties, and thus give to such counties an undue and unjust voting strength in the Association. Manifestly, such a policy would rapidly sow the seeds of dissatisfaction, and lead to disintegration and destruction of the entire system of organization.

Further, the principle sought to be introduced proposes to confer upon the members of the county societies the privilege of *purchasing* the right to vote in the Association, a privilege which it requires no prophetic eye to see might be greatly abused and thus lead to the introduction of the lowest political methods into this body.

A designing and ambitious member might easily utilize the privilege thus accorded to promote his chances for office, or to advance any scheme in which he possessed a personal interest. This suggestion might be pronounced an unjust reflection, but, in making constitutions and passing laws and ordinances, it is wise to keep in view all possible dangers and abuses, therefore, this one is pointed out.

At present, whenever the Association exercises its legislative function representation therein is not only definitely fixed as to number, but is so adjusted as to be fair to all parts of the State. No county and no two or three counties can possibly acquire undue influence or exercise dangerous power. Evidently, this point was carefully guarded by the lamented leader who masterfully conceived the philosophical principles upon which our system of organization is based, and who so

logically put together the details of its structure from foundation to dome. As is known, the voting strength of this Association consists of one hundred counsellors and of one hundred and thirty-two delegates. Doubtless these figures were fixed by the author of the system after mature deliberation. Certainly the wisdom of so fixing the number of voters can be readily seen. This Association, and the County Societies in affiliation therewith, was intended to be an organization of the *entire* medical profession of the State, not of a part of it, therefore, the principles of its organization were so formulated as to give to the profession of the State, speaking through delegates sent up from County Societies, the controlling voice in all of its councils.

Obviously, all of the members of County Medical Societies cannot attend every meeting of the Association, but their views can always be represented by delegates, instructed if need be, hence, the exercise of arbitrary or unwise power by any "ring" or combination is effectually prevented. Attention has already been called to the bad wisdom of permitting members to *purchase* the privilege of voting. It would be a parallel paradox were the citizens of the various counties of the State permitted, in addition to sending their fair proportion of representatives to the General Assembly, to purchase the right of voting therein upon the payment of a certain sum of money and without any restriction as to the number that might so acquire the right. That every principle of equity would be violated by such a legislative system is too obvious to require discussion.

The Constitution of this Association, which for twenty-eight years has stood the test of practical application, wisely restricts the right of voting to counsellors and delegates, both of whom are chosen by their colleagues. The recommendation of the President would confer upon certain members the privilege of asserting this right for themselves and wholly independent of being chosen by their colleagues.

To retain their membership in the Association counsellors must attend at least one meeting in three, an obligation imposed no doubt to compel them to be present frequently enough to become familiar with the merits of the system and in full sympathy with its aims and purposes.

No such obligation as to attendance would be imposed upon the class of voters admitted by the President's recommendation. Prompted by misguided zeal and filled with ambition to become reformers, the danger and probability is that many of them would attend but spasmodically and, ignorant of the philosophy underlying the system, would recklessly assail and attempt to destroy what older and, we may say, wiser heads had labored years to build up and establish. As education is the only remedy for antagonism born of ignorance, so, familiarity with the logic of our system, acquired by study and by attendance upon the meetings of this Association, is the only remedy against hostility to it.

It is well known that there are members of the profession in the State opposed to all organization, and that there are others hostile to *our* system of organization, their hostility growing out of a failure to comprehend it.

Were the President's recommendation adopted, it would be easily within the range of possibility for these two classes of our enemies to form a conspiracy for the overthrow of our organization, and to carry out such conspiracy. They only need to go into a meeting of the Asssociation in such number as to dominate it and to declare by resolution that the organization shall be, and is hereby, dissolved, and so notify the State authorities, in order that they shall no longer look to us to advise or execute in public health matters. Would it be wise to let into our citadel such a Trojan horse as that? Were the very same men who would thus recklessly destroy the symmetrical and coherent system which our predecessors built up compelled to acquire the right of voting by compliance with present constitutional provisions, the certainty is that many or all of them would, by acquiring familiarity with the system, become its warm and enthusiastic advocates and supporters.

Another and a very fatal objection to the recommendation in question consists in the ease with which the instructions of any County Society to its delegates, appointed to attend a meeting of the Association, could be completely nullified. For instance, suppose an important question should arise in reference to which any given County Society, consisting, say, of fifty members,

should desire to give its delegates express instructions. The question is thoroughly discussed in a full meeting and a decision reached by a vote of forty to ten. Accordingly, the two delegates receive express instructions from the Society as to how they shall vote upon the question. They attend the meeting of the Association and vote as instructed, but the ten members, who constituted the small and defeated minority in the county society, likewise attend and by purchasing the right to vote, nullify, five times over, the votes of the two delegates who represent the very large majority of the Society.

It is no defense of the President's recommendation to claim that this would not happen. It is easily within the range of, not only possibility, but probability. It might be said that the forty members who decide as to the nature of the instructions given to the delegates could likewise attend the meeting of the Association and support their views with their votes, but would this be a desirable state of affairs? Would it not certainly transfer struggles, often local in character, from County Societies to this Association, and, thus, foment strife and discord in both places? Unquestionably.

Another and overwhelming objection to the recommendation consists in the certainty that, if put into operation, it would materially weaken the strength of many of the County Societies and, not only so, would utterly destroy many of them. The County Societies are the pillars upon which this Association rests; destroy them, and, necessarily, the superstructure falls into a hopeless mass of ruins. Many members of County Societies would utterly neglect the obligations due their home organizations and would find satiety of their desire for professional fellowship and scientific improvement by attending one annual meeting of this Association. Under this condition of things, it would be very difficult or impossible to carry on public health work in the counties in accordance with our system. Whenever we, as an organization, cease to do public health work for the counties and the State, then, we release the State in some measure from obligation to protect us in our efforts to uphold the dignity and to elevate the standard of the profession. When such a condition arises the

profession of medicine will be dragged down into the mire and rendered so disreputable that no decent man would desire to be a member of it.

It is confidently believed that this Association, with its proud record of achievements and the grand possibilities before it, will emphatically and overwhelmingly refuse to endorse a policy clearly calculated to lead to such results. Our system of organization has abundantly illustrated its wisdom by its fruits. Shall we weaken its capacity for achievement or jeopardize its prospects for perpetuity by incorporating a measure obviously unfair and, therefore, unwise?

The President, in speaking of the author of the system, uses the following warm, true, and eloquent words: "The mind that conceived the plan was a master mind; the courage that prosecuted it was dauntless; the statesmanship and diplomacy that won it were matchless. "That mind, courage, and statesmanship are no longer available to plan, execute, and achieve, but they still live in the hearts of the members of this Association to inspire them with hope, to encourage them in their work, and as an example for their methods."

Fortifying our position with this splendid eulogium upon the author of our system by the President, it would be a sufficient objection to the recommendation under discussion to say that Jerome Cochran did not embody it in the plan; on the contrary, he expressly provided that it should not be embodied.

Would it not be a condemnation of his plan to incorporate in it a feature so radically subversive of one of its fundamental principles? The system is beginning to attract wide attention and to be copied by other States. In this connection, permit us to say that inquiries for information as to our system of organization have been received from various directions, notably, from the President of the Medical Association of the State of New York. A letter, recently received from Dr. George H. Simmons, Secretary of the American Medical Association, and editor of the Journal of the Association, contains the following: "We are working to get a uniform plan of organization adopted by all of the State Societies. Yours, in my estimation, is as nearly perfect as any, the only trouble is that it goes a little farther

than the majority would want to go, as I understand it."

Occupying the position that Dr. Simmons does, we regard this endorsement as emanating from, not only a high, but an unusually well-informed source. Let us not, then, mar our system by embodying in it a principle against which there seem to be so many and such grave objections.

The final argument against the adoption of the President's recommendation, which the Board presents, is that in order to carry it into effect it would be necessary to apply to the General Assembly of the State for an amendment to our charter, and, that obtained, it would then be necessary to amend the Constitution of the Association.

For many and obvious reasons an application to the General Assembly for an amendment to the charter would be attended by grave dangers, namely, of having other and undesirable changes made in our organic law. The Board recalls very vividly an able argument on this very point delivered by the President at the last meeting of this Association, in which argument he pointed out the dangers of making application to the General Assembly to amend the laws, now on the statute books, giving this Association its legal status and rights. This reason alone, did no other exist, would render the adoption of the recommendation impolitic and unwise. The arguments in behalf of our present system, and against the recommendation of the President, may be summarized as follows:

1. The State Medical Association being the State Board of Health and, therefore, a quasi-legislative body, the number of its members entitled to vote should be as definitely fixed as those of any other legislative body, and should be apportioned to all parts of the State upon a fair and equitable basis. The adoption of the recommendation of the President would violate both of these propositions, by introducing an uncertain and constantly varying factor as to the number of members entitled to vote, and by disarranging the fair and equitable distribution of them, thus leading to dissatisfaction and, possibly, to disorganization of many of the county societies.

2. The adoption of the recommendation would confer the privilege of *purchasing* the right to vote and would render the voter entirely independent of election by his colleagues, either of this Association, or of his county society.

3. It would disarrange that fair and equitable adjustment of the voting strength, now existing, between permanent members, or counsellors, and delegates, in which adjustment resides the great elements of safety, solidity and perpetuity.

4. It would give to a minority of the members of any county medical society the opportunity of nullifying in the Association the expressed will of the majority of members in such society, as made known in the form of instructions to its delegates.

5. It would give to members important rights without imposing upon them corresponding obligations.

6. It would tend to weaken and to disintegrate the county societies, thereby impairing or destroying the foundations upon which the structure of this Association rests.

7. The author of the system expressly and wisely provided against such a feature.

8. Finally, in order to carry the recommendation into effect, it would be necessary to apply to the General Assembly to have the charter of the Association amended, an undertaking that would be fraught with much danger.

Second Recommendation.

The next recommendation the President makes is as follows:

"I therefore suggest that the Association offer a prize of twenty-five dollars for the best paper upon any one subject pertaining to medical topography or climatology in this State, as a whole or a defined district."

The Board has given this recommendation very careful study, and along with the President, deems it very desirable to obtain comprehensive, accurate, and exhaustive papers on the subject named, but the Board also realizes that the subject is one which, although comprehensive and at the same time full of interest-

ing details, would be in danger of becoming exhausted after a few years, that is to say, the data within reach of those who might feel inclined to compete for a prize would become exhausted. Any one who might propose to write upon climatological and topographical subjects would necessarily be compelled to draw his data largely from the reports of the Weather Bureau, from a study of the map of the State, and from the records of the vital and mortuary statistics of the State.

Naturally, these sources of supply would be limited, not limited if fully developed and made available, but limited on account of the lack of such development and availability. In other words, much work must be done in these fields by engineers, weather bureau employees, and gatherers of vital and mortuary statistics before doctors could find large data from which to draw conclusions and lessons—hence, after a few years, succeeding papers on these subjects would necessarily cover much the same ground and include much the same data that preceding ones had covered and included.

It has been contemplated, whenever adequate salaries are obtained for the health officers of every county in the State, to require these officers, each for his own county, to prepare reports covering, as far as can be done, the ground recommended in the President's message.

The Board is of the opinion that it would be best to develop this subject in the way just mentioned, and whilst endorsing the spirit of the President's recommendation, it suggests that the object sought be accomplished, as well as can be, in the way just proposed, and without offering a prize therefor.

Third Recommendation.

With the view of providing for full reports of the discussions had at meetings of the Association, the President recommends the employment of a stenographer.

The Board endorses this recommendation as worthy, at all events, of trial, with the intention of being guided in the future by the results obtained. A stenographer has been secured for this meeting at an expense of twenty-five dollars, which amount the Board recommends be

paid in accordance with the methods prescribed for the payment of all other expenses.

Fourth Recommendation.

The fourth recommendation of the President is that "the county societies have annual, semi-annual, or quarterly social entertainments, as a part of their regular work."

With this recommendation the Board is in hearty accord, and if carried out believes it would tend very materially to cement the county societies together in closer and more fraternal harmony.

Fifth Recommendation.

Without quoting the President's fifth recommendation at length, the Board undertakes to state it as follows, believing that all of the points it embodies are included:

He proposes that county boards of examiners be abolished, and that one State Board, before which all applicants must appear, be created, said Board to be composed of members of the different sects of medicine in the State, in proportion to the numerical strength of the organized bodies or State Associations of such sects.

He further proposes that all applicants belonging to any irregular sect shall be examined in anatomy, physiology, pathology, chemistry, symptomatology, and diagnosis, and that all applicants belonging to the regular system of medicine shall, in addition to the preceding branches, be examined in the practice of medicine, surgery, obstetrics, and gynecology.

One other provision is included, namely, that applicants who propose to practice "some particular or special system" shall be examined by those "familiar with the particular method," including "the treatment of diseases according to his school or system."

This recommendation covers a wide scope, and to deal with it exhaustively would require a very lengthy discussion.

Were the recommendation endorsed by this Association, it would be necessary, in order to put it into operation, to apply to the General Assembly for a radical

reconstruction of the law regulating the practice of medicine in the State. The Board has the authority of the President for pronouncing this an unwise and dangerous experiment, he having so expressed himself in an argument on the floor of the Association last year. The Board coincides with this view, and is of the opinion that the danger pointed out would, alone and unsupported, be a sufficient argument against the adoption of the recommendation in question.

So far as abolishing county boards of examiners is concerned, that question has been discussed at considerable length on previous occasions, and the verdict of the Association has always been that such a course would be unwise and impolitic. It scarcely seems necessary to enter into an elaborate argument, here and now, in defense of our system in this respect.

We turn, therefore, to the consideration of the membership of the proposed State Board, which the President recommends shall take the place of the present State Board and of the county boards. He says:

"This Board should contain representatives, acccording to the numerical proportion of the so-called schools of medicine."

A little analysis will show how utterly impracticable it would be to constitute a State Board of Examiners upon such a plan.

Were it undertaken, the first step would be to fix a unit of representation on the Board, that is to say, the sect or school of medicine in the State having the smallest numerical strength would be entitled to one member, and starting from that basis, all other schools to their pro rata share of members. On such a board the regulars, the homeopaths, the eclectics, the Thomsonians, the osteopaths, the hydropaths, the magnetic healers, the vitapaths, those adhering to a belief in the wonderful virtues of the electropoise, and, finally, the Christian Scientists would claim membership. In all probability this list would be continually added to, and whenever an addition occurred the basis of representation on the Board would require to be re-adjusted. But, let us make some figures in order to see clearly how the plan would work.

Suppose the State Organization of the smallest school or sect of medicine in the State should number ten members, such school would be entitled to one member of the Examining Board; a school having a numerical strength of fifty would be entitled to five members; and, in this proportion, through the different schools, up to the largest.

The President tells us that there are 930 regular physicians belonging to the county societies, and a total of 1,600 regular physicians in the State. Adopting the former figures, that is 930, and applying the basis fixed upon to that number, it will be seen that the regular profession would be entitled to 93 members on such a State Board of Examiners as that proposed by the President, and should all of the 1,600 regular physicians in the State become members of their respective county societies, and, thus, members of the State Association, the regular profession would be entitled to one hundred and sixty members.

It is at once evident that a board so constituted would be utterly impracticable and would fall to pieces by its own weight.

Let us continue the analysis somewhat further.

The President's plan provides that all applicants for license belonging to any irregular sect or school of medicine shall be examined "in anatomy, physiology, pathology, chemistry, symptomatology, and diagnosis." But, the pertinent question arises: How could the members of the Board belonging to the school of magnetic healers, that of the Christian Scientists, or the believers in the electropoise, for instance, take part in holding examinations on the above named subjects, they knowing nothing of said branches themselves, and maintaining that such knowledge is unnecessary to the successful treatment of disease. Yet, according to the recommendation of the President, representatives from these sects, as of any other sect that might arise, must hold positions on the Board, else one other essential of his plan could not be carried out, namely, the examination of each applicant for license in the "treatment of disease according to his school or system." That is to say, an osteopath must be on the board to examine all applicants who propose to practice that

system in the application of massage; a magnetic healer must be there to examine all applicants who intend to treat disease according to that system; a believer in the electropoise must be there to ascertain whether adherents of that system understand how to tie the magic string around the legs of patients which is guaranteed as a sovereign remedy for diseases of every kind. There would be no escape from placing such representatives on the first board created in accordance with the President's views.

Think of admitting to membership on a State Board examiners who, not only are ignorant of the great fundamental sciences upon which all rational therapeutics rest, but who repudiate such knowledge as unnecessary! Would it not be an insult for a regular physician—one who had thoroughly equipped himself by years of arduous and extensive study for the scientific treatment of disease—to appear before a board of examiners composed, in part even, of such members? Would not the creation of such a board prove demoralizing, by discouraging competent and ambitious young men from becoming learned in the science and art of healing, and thus result in placing the lives of the sick and injured in the hands of the charlatans, quacks, and impostors?

Further, in the recommendation is embodied the proposition that the scope of the examination of regulars and irregulars shall differ, that is, that irregulars shall be examined in anatomy, physiology, pathology, chemistry, symptomatology, and diagnosis, and that, in addition to these branches, regulars shall be examined in the practice of medicine, surgery, obstetrics and gynæcology.

In other words, a shorter examination is proposed for irregulars, and a longer for regulars.

When our law regulating the practice of medicine first went into operation, the State Board, acting under the authority granted it of regulating examinations, the subjects thereof, etc., provided a longer examination for regulars and a shorter one for irregulars. In the former, ten branches were included; in the latter, only four.

After some years of application of this rule, it was found that some regular physicians, who intended to practice the regular system, would, for obvious reasons, apply for the shorter examination, and, if successful in obtaining license, would then practice the regular system. The manifest injustice and dishonesty of this course led to the adoption of the present rule, namely, one requiring that all applicants shall be examined upon the same branches, ten in number, but that materia medica and therapeutics shall be entirely excluded from the examination. The obvious reason for this rule was that a regular physician could not examine an irregular one upon his remedial agents, or upon his method of treating diseases.

This change prevented the evasion of the law by dishonest applicants, and clarified the entire subject of examinations.

The President now proposes that an irregular be examined "in the treatment of disease according to his school or system." It is not clear whether he proposes that regulars be examined in the treatment of disease, but as he enumerates "Practice of Medicine" as one of the branches upon which they must be examined, it is to be inferred that he does mean for them to be examined in the treatment of disease, also.

As has been said, the elimination, years ago, of materia medica and therapeutics from the examination constituted an important advance in the selection of subjects for examination. The truth is, there is no absolute standard of therapeutics. For instance, two regular physicians may graduate from the same college and own precisely the same medical books, and yet may differ as to the treatment of diseases. How physicians will treat their patients must be left to their judgment after having prepared themselves for exercising judgment about such matters. If therapeutics were a subject for examination, two examiners might differ very widely in their valuation of the same answer, one considering it, according to his view, a perfect answer, whilst the other might consider it absolutely worthless. The justice of excluding the subject of therapeutics from all examinations is too apparent to need further discussion. Both equity and policy dictate that it be

excluded from the examination of all irregulars. The President, however, proposes that the subject be reintroduced into examinations, which proposition does not meet with the approval of this Board.

Without continuing further the analysis of the President's fifth recommendation, the Board advises that it be not endorsed.

Sixth Recommendation.

The President's closing recommendation is that efforts be continued to raise funds for erecting a monument to our deceased leader, Jerome Cochran. With the splendid and eloquent tribute the President pays to the memory of the man who created our system of organization and made it what it is, we are in full and faithful sympathy and trust that the fervid appeal he makes will so fire the hearts of the members of this Association that they will not relax their efforts until a monument is erected worthy of the dead, and creditable to the living, and that shall proclaim to posterity the high value we place upon the services Jerome Cochran rendered to the profession and the people of this State.

Reports of the Vice-Presidents.

The reports of the vice-presidents show that they have felt deeply interested in their work, and that they have spared no effort to make it a success. They are richly entitled to that credit always due for unselfish and laborious work faithfully performed.

Acting upon a suggestion contained in the report of the senior vice-president, the Board recommends that the sum of twenty-five dollars be set aside for each of the vice-presidents, to meet necessary expenses incurred in correspondence and in the performance of their duties in other respects. The Board is aware that these sums are small, being intended merely to meet some of the incidental expenses, but in fixing them the Board adheres to the policy which has prevailed in this Association since its organization, namely, to expect that a large amount of its work shall be done without the hope of receiving other reward therefor than the consciousness of having faithfully labored to uphold the dignity and to extend the usefulness of the profession.

The Board recommends that the vice-presidents shall furnish vouchers, along with their annual reports,

for all expenditures made under this appropriation, whether a part only of the amount be expended or the whole.

The Report of the Secretary and the Book of the Rolls.

The report of the Secretary has been rendered in due order, but, as explained in the report, the books are not here, the reason being that the case in which they have heretofore been transported to the meetings of the Association has become so worn that it does not admit of the books being safely shipped in it. The Secretary did not conclude that the case was unsafe until it was too late to remedy the difficulty, hence the absence of the books at this meeting. The Board recommends that the Secretary be authorized to purchase another case or container for the books.

Report of the Committee of Publication.

The Committee of Publication reports great delay in the appearance from the press of the last volume of Transactions, and gives some of the reasons that led to so much delay. Profiting by the experience acquired, the Committee will be expected, by the Board and the Association, to succeed in procuring the publication of the next volume more promptly than the last was published.

Report of the Treasurer and the Book of Accounts.

The Board reports that the Auditing Committee examined the report of the Treasurer and the Book of Accounts, and found them correct, and recommends that they be approved.

The Accounts of the State Health Officer.

Owing to the calls which the State Health Officer received within the past two weeks to visit various parts of the State, it proves to be impossible to make a full statement of his accounts at this time, for which the Health Officer expressed his regrets.

The Board recommends to the Association that the members of the Board residing in Montgomery be ap-

pointed a committee to examine the accounts of the State Health Officer, as soon as can be done, and that said committee have power to act, that is, to approve or disapprove them, and that said action be incorporated as a part of this report and printed in the forthcoming volume of Transactions.

Revision of the Minutes of 1900.

We are glad to be able to report that no errors occur in the Minutes of last year.

In other parts of the volume, typographical errors are tolerably numerous, but in most instances it is easy for the reader to apply the correction. The most essential errors are pointed out in a table of errata.

The way in which these typographical errors occurred was explained in the report of the Committee of Publication. Profiting by the experience of last year in having printing done with a linotype, doubtless efforts will be made to avoid similar trouble in the future.

Delinquent County Societies.

The number of county societies found totally delinquent (10) at the last meeting of the Association, was in excess of the usual average, due, no doubt, to the serious interruption of travel caused by the heavy floods that prevailed just before and at the time of the meeting.

The societies reported as totally delinquent are:

Blount, Clarke, Covington, DeKalb, Franklin, Greene, Lauderdale, Morgan, Pickens and Wilcox.

Whilst some of these counties have been on the delinquent list continuously for several years past, others were there, doubtless, for the reason already stated.

Numerous letters have been written to the officers and members of the delinquent societies, with the hope of stimulating them to a full compliance with the constitutional obligations of their respective societies at this meeting.

New Edition of the Book of the Rules and New Charters.

Circumstances have rendered it both impossible and impolitic to publish a new edition of the Book of the

Rules, the reasons for which need not, perhaps, be stated at length here.

The same explanation applies, in the main, to the failure to furnish the county societies with new charters.

The Board recommends that the authority to revise the Book of the Rules and to issue new charters to county medical societies, heretofore granted, be continued.

Visit to Washington.

The Board reports that in May of last year the State Health Officer deemed it wise to make a visit to Washington, in order to obtain a hearing before a Senate Committee having under consideration a bill to enlarge the quarantine powers of the Marine Hospital Service.

After arriving at Washington he procured a copy of the bill. Upon reading it, he saw grave objections thereto, the objections applying more particularly to the first section. Along with a number of other health officials, representing various coast cities, from Boston to New Orleans, he had a hearing before the Committee, consisting of seven Senators, with Vest, of Missouri, as chairman.

The first health official who addressed the Committee (Dr. Goode, of Mobile) endorsed the bill in its entirety, expressing himself in favor of conferring upon the Marine Hospital Service not only all the power asked for in the bill, but more.

The State Health Officer obtained the second hearing, and endeavored to point out to the Committee the very serious objections to the first section of the bill. To the other sections there were no serious objections to be made. Indeed, some of the sections were entirely proper, and in the direction of promoting the sanitary interests of the country.

A number of the other health officers present addressed the Committee, all of whom opposed the enactment of the bill into law, especially the first section.

Subsequently, the bill passed the Senate, but with the first section entirely stricken out.

Jails and Poor Houses.

At the meeting held in Mobile, in 1899, a movement was inaugurated to ascertain the condition of the jails and poor houses of the State, and also, the adequacy or not of the provisions made for supplying the inmates with food and physical comforts.

A circular letter, containing a series of interrogatories calculated to elicit the needed information, was sent out to the health officers of all the counties in the State. Many of the reports were ready to be submitted at the last meeting of the Association, but preferring to wait until the report could be made as complete as possible, they are now submitted.

Jail Reports.

After examining and comparing the reports received, we have classified the jails under three heads, as follows:

1. Jails reported in good sanitary condition, and inmates treated, in all respects, humanely.
2. Jails reported in fairly good sanitary condition, and inmates fairly well treated.
3. Jails reported in bad sanitary condition, and inmates inadequately provided for.

Under the first head we place the jails of the following counties:

Autauga, Baldwin, Barbour, Calhoun, Chambers, Cherokee, Cleburne, Conecuh, Crenshaw, Dale, Dallas, DeKalb, Escambia, Etowah, Fayette, Franklin, Hale, Jefferson, Lamar, Lawrence, Lee, Marengo, Marshall, Mobile, Monroe, Montgomery, Pike, Randolph, Russell, Shelby, Sumter, Tuscaloosa, Washington, Winston. Total, 34.

Under the second head, the following:

Macon, Perry, St. Clair. Total, 3.

Under the third:

Clay. Total, 1.

Poor House Reports.

Fifty-six reports were received. After examining and comparing them we have classified them as follows:

(*a*)—Counties that provide houses for their poor:

Barbour, Bibb, Blount, Bullock, Butler, Calhoun, Cherokee, Chilton, Clarke, Clay, Coffee, Conecuh, Coosa, Crenshaw, Elmore, Escambia, Etowah, Fayette, Greene, Hale, Henry, Jackson, Jefferson, Lawrence, Lauderdale, Lee, Limestone, Macon, Madison, Marion, Marshall, Mobile, Monroe, Montgomery, Perry, Pickens, Pike, Randolph, Russell, Shelby, Sumter, Talladega, Tallapoosa, Tuscaloosa, Washington. Total, 45.

(*b*)—Counties that do not provide houses for their poor:

Baldwin, Chambers, Choctaw, Cleburne, Cullman, Dale, Dallas, DeKalb, Marengo, St. Clair, Winston. Total, 11.

Of the counties that do provide houses we make the following classification:

1. Counties that provide comfortable houses and supply the inmates with abundant food, bedding, and clothing:

Barbour, Blount, Bullock, Butler, Calhoun, Cherokee, Chilton, Clarke, Clay, Coffee, Conecuh, Coosa, Crenshaw, Elmore, Greene, Hale, Jefferson, Lauderdale, Lee, Limestone, Madison, Marion, Marshall, Mobile, Monroe, Perry, Pickens, Pike, Randolph, Shelby, Sumter, Talladega, Tallapoosa, Tuskaloosa. Total, 34.

2. Counties that provide fairly comfortable houses and supply the inmates fairly well with food, clothing and bedding:

Bibb, Escambia, Etowah, Fayette, Henry, Lawrence, Washington. Total, 7.

3. Counties that do not provide comfortable houses and do not supply the inmates with adequate food, clothing and bedding:

Jackson, Macon, Montgomery. Total, 3.

4. Counties that do not provide houses for their poor, but care for them otherwise,—that is, by placing them under the charge of persons, paying monthly allowance for them, etc. Of these counties, the following named report the arrangement satisfactory, and that the poor are properly cared for:

Baldwin, Chambers, Choctaw, Cleburne, Cullman, Dale, Dallas, DeKalb, Marengo, St. Clair, Winston. Total, 11.

It will be seen that whilst the jails and poor houses, in a large majority of the counties, are reported in good sanitary condition and the inmates well provided for, some are reported in opposite condition.

In counties of the latter kind the committees of public health and the county health officers should make vigorous efforts to have the conditions improved. As one of the evidences of advancing civilization, along with which advance all authorities in charge of prisons should endeavor to keep pace, the sanitary and hygienic surroundings of those who are undergoing penal servitude, or are objects of public charity, should be maintained at such standards of comfort as to admit of no criticism.

Ordinance Enacted Last Year.

At the last meeting of the Association the following ordinance was enacted:

"Be it ordained by the Medical Association of the State of Alabama, That any member of a County Board of Examiners who may be officially connected with the college of which any applicant who may appear before the board for examination is a graduate, or who is related by blood or marriage to such applicant, shall be disqualified from participating in the examination of such applicant.

The place of such member of the board for such examination shall be temporarily supplied by the remaining members of the board from among the reputable and qualified members of the society of which such board is the creature."

Whilst the equity of this ordinance cannot be questioned, the legality of it has been questioned, on the ground of its being in violation of the Constitution of the Association.

The Senior Censor has obtained legal advice on this point, and whilst the attorney whom he consulted is not clearly of the opinion that the ordinance is in violation of the Constitution, yet, there being a doubt, the attorney advises that the ordinance be declared inoperative until the Constitution can be so amended as to remove all doubt. In order to carry out this policy the Board recommends:

1. The adoption of the following resolution:

Resolved, That an ordinance adopted at the meeting of this Association, held in Montgomery, in 1900, prohibiting any member of a college faculty who at the same time is a member of a County Board of Examiners from participating in the examination for license to practice medicine of any graduate of the college to whose faculty said member belongs, and likewise prohibiting any member of a County Board of Examiners from participating in the examination of an applicant for license related to him either by blood or marriage, be declared inoperative until such time as the Association may make it operative.

2. The Board next proposes the following amendment to Article 70, Section 14, of the Constitution of this Association:

Insert after the word "members" in the third line the following words: The qualifications for membership of which board, and how places thereon may be filled, or duties performed, in cases of temporary disqualification, sickness, or absence, of regular members, may be prescribed, from time to time, by the Association.

Legislation.

In accordance with instructions received from this body, efforts were made during the recent session of the General Assembly to procure legislation upon several subjects. Bills were drawn covering these subjects, and, upon request, were introduced into the General Assembly by members thereof. We have to report that only two out of ten bills thus introduced were enacted into law.

To give a historical account of the causes that led to the failure of such a large proportion, and by far the most important, of the bills to become laws, would require a long story.

One fact, however, was very forcibly impressed, namely, that legislators are but little inclined to consider or legislate upon public health questions. The truth is that in a session limited to fifty days, the members of the General Assembly are hard-worked, and with the great and growing mass of local legislation that engages their attention it is practically impossible to find opportunities of so informing them upon public health questions demanding legislation as to secure their hearty co-operation. The only remedy for these difficulties consists in educating the members of the General Assembly, in advance of the session, upon such

public health questions as will be brought to their attention. This can only be done by the resident physicians of the various counties. They are the constituents and friends of the members, respectively, and, therefore, occupy favorable positions for informing and interesting them upon such matters. In any effort that may be made hereafter to secure legislation, the wisdom of employing this method is urged upon the members of this Association.

The two bills enacted into laws were:

1. A bill increasing by one thousand dollars the appropriation for carrying into execution the health laws of the State.
2. A bill referring to the reports of deaths by midwives.

The time has arrived for this Association to assert in an open and dignified way its claim to advisory authority upon all public health questions. Its record is certainly such as to entitle its counsels to respectful consideration, both by the people and the law-makers of the State, and it can well afford to challenge investigation of that record. For more than twenty years it has persistently sought to build up a public health system intended to prevent, as far as possible, disease. Should the advice of its members upon questions that preëminently lie in their special domain of thought and study continue to be disdained and repudiated, self-respect will dictate that such advice be no longer furnished, especially, as it is done wholly without remuneration or the expectation thereof. Trusting, however, to the final success of a public health system believed to be founded upon correct principles, and calculated to promote, in very large degree, the sanitary interests of the people, the members of the Association are invoked to continue their efforts to build up the system, until complete success is achieved, or there is no longer any prospect of success.

Of the ten bills bearing upon public health matters introduced into the last General Assembly, the one intended to provide salaries for county health officers was by far the most important, and the one to the success of which all others would have been freely sacri-

ficed. A salaried health officer, as a salaried sheriff, should exist in every county of the State. We must never surrender our efforts to secure the passage of a bill providing adequate remuneration for such an officer, for, perseverance rarely fails to secure an object to which it clings with unyielding tenacity.

Whilst we failed to secure much of the legislation we did want, we achieved, perhaps, a greater triumph by preventing legislation we did not want.

It is known to many, if not all, of the members of this Association that some ten years ago a board, denominated the Quarantine Board of Mobile Bay, was created in violation of one of the fundamental principles for which we have been contending for twenty-five years, or more, namely, that health and quarantine boards should consist exclusively of medical men, and should be independent of both political and commercial domination. The Quarantine Board of Mobile Bay is a mixed board, that is, it consists of medical and non-medical members or commercial men, the latter being largely in the majority.

The act creating this Board was obtained under peculiar circumstances, into the history of which time does not permit us now to go. However wrongly or unwisely created, the Board became an accomplished fact, and so remains to the present time. No effort has been made by this Association to undo the legislation alluded to, chiefly for the reason that the Board employed a very experienced medical man as executive officer, one to whom great ability in the administration of quarantine is conceded.

With a man of that character in control of the practical administration of such quarantine as falls under the jurisdiction of the Board, the profession and people of Mobile felt a high degree of security. It must be remembered, however, that no one man can live always, and, indeed, the medical officer to whom allusion is made, has, by reason of ill health, been rendered unfit for duty for some months past, and it is uncertain when, if ever, he will be able to resume active administrative work.

It is safe to assert that no man can succeed him who will, as a quarantine officer, enjoy the confidence of the

profession and people of Mobile to the same extent that he did. An organization that so largely depends upon the life or continuance in office of one man is certainly not based upon sound principles.

The jurisdiction of the Quarantine Board of Mobile Bay, by the terms of the Act that created it, is confined to the waters of Mobile Bay. At the recent session of the General Assembly Hon. R. H. Clarke, of Mobile, introduced a bill which proposed to enlarge the jurisdiction and the power of the Board, to an extent believed by your State Health Officer to be dangerous. The bill reads as follows:

A BILL

To be Entitled An Act to Extend and Better Establish, Maintain and Regulate the Duties and Authority of the Quarantine Board of Mobile Bay.

Section 1. Be it enacted by the General Assembly of Alabama, That the authority of the Quarantine Board of Mobile Bay be and the same is hereby extended over all the waters of the Gulf of Mexico, including that portion thereof known as Mississippi Sound, bordering upon or within this State and over which this State has jurisdiction.

Sec. 2. Be it further enacted, That the Quarantine Board of Mobile Bay be and the same is hereby authorized to cause any person or persons upon vessels entering any of the waters within the authority of said Board to be detained in Quarantine at the place of such entry, or at such other place or places in said waters as may be designated by the said Board, for such reasonable time and under such regulations as said Board may deem necessary or desirable for the preservation of the public health; Provided, that this section of this Act shall in no wise abridge or impair such other powers and authority as are vested in said Board by law.

Sec. 3. Be it further enacted, That the powers and authority vested in said Quarantine Board of Mobile Bay by law shall be exercised exclusively by said Board, and shall not be set aside or interfered with save by the Governor of this State in the exercise of the powers of quarantine vested in him by law for the protection of the health of the people of this State.

Without undertaking to enter upon anything like an exhaustive discussion of the bill, some of the salient objections thereto may be briefly stated. By the terms

of the Act creating the Board its jurisdiction is confined to the waters of Mobile Bay, that is, it guards the entrance to the bay, and decides what ships, coming from either domestic or foreign ports, shall be permitted to enter, and upon what terms. Inasmuch as ships, in order to reach Mobile, must first enter the bay and then pass into Mobile river, they necessarily come under the jurisdiction of the Board of Health of Mobile County before landing at the wharves. In the last analysis, therefore, the Board of Health of Mobile county can fix the terms upon which vessels are permitted to land at the wharves. This check has heretofore existed against any unwise risks taken by the Quarantine Board of Mobile Bay, and has been applied in one or more instances. A notable one was when a gentleman, then the Mayor of Mobile, who had been prominent and influential in securing the legislation that created the Quarantine Board of Mobile Bay, appealed to the Board of Health of Mobile county to prevent the landing of a steamer, believed to be dangerous, which had been permitted to enter the bay by the Quarantine Board of Mobile Bay. That is to say, one of the very gentlemen who had been largely instrumental in securing the legislation which created the Board, when confronted by a risk that had resulted from its unwise action, appealed to the Board of Health of Mobile county to nullify said action, which was done.

The adoption of Mr. Clarke's bill would have entirely removed this wholesome check.

Section 1 of the bill seeks to enlarge the jurisdiction of the Board so as to make it extend "over all the waters of the Gulf of Mexico, including that portion thereof known as Mississippi Sound, bordering upon or within this State, and over which this State has jurisdiction."

Now, if the creation of a mixed quarantine board, one composed partly of medical and partly of commercial men, the latter being, in the case under discussion, very much in the majority, is wrong in principle and dangerous in practice, it must follow that any enlargement of the powers of such a board only perpetuates and intensifies the wrong already committed. For the same reason that judges and jurors are not permitted

to sit upon cases in which they have a personal interest, so, commercial men should not be permitted to control in matters of quarantine, lest their judgments might be perverted by their commercial interests. It is clear, therefore, that the powers of the Quarantine Board of Mobile Bay should not be extended, as was proposed to be done in the first section of the bill under discussion. Many practical reasons might be pointed out against such extension of power. One will be mentioned: Suppose a disease should prevail at Scranton, Miss., in reference to the diagnosis of which the medical officer of the Quarantine Board of Mobile Bay and the medical officers representing the city and county of Mobile and the State of Alabama should differ, the latter declaring the disease to be yellow fever, the former declaring it not to be. Under such conditions the State of Alabama and the city and county of Mobile would very likely declare quarantine against Scranton, but the Quarantine Board of Mobile Bay could not, with due respect to its medical officer, so declare. With the Quarantine Board of Mobile Bay keeping the Alabama coast bordering upon the Gulf and the waters of the Bay freely open to all craft coming from Scranton, it would be practically impossible for the State and the city and county of Mobile to enforce quarantine against Scranton.

As section 2 of the bill simply enumerates powers already possessed by the Quarantine Board of Mobile Bay, it is unnecessary to discuss that section.

In section 3 of the bill lurked the greatest danger. As already said, the original Act creating the Quarantine Board of Mobile Bay restricts the jurisdiction of the Board to the waters of the Bay. Had the third section of the bill been enacted into law all checks upon possible unwise action on the part of the Quarantine Board of Mobile Bay would have been entirely removed, save such as, according to the terms of the bill, might have been applied "by the Governor of this State in the exercise of the powers of quarantine vested in him by law for the protection of the health of the people of this State."

Suppose an issue as to the admission of a vessel should arise betwixt the Quarantine Board of Mobile Bay and the Board of Health of Mobile county, the for-

mer declaring it safe for the vessel to land at the wharves of Mobile, the latter declaring it unsafe, how could the dispute be settled? The Governor is in Montgomery, and therefore far removed from the scene of dispute, the circumstances of the case are unknown to him, and can only be communicated by mail or by representatives of the two conflicting authorities seeking personal interviews with him, all of which would require considerable time. It is obvious, therefore, that delay and friction would occur, a condition of things favorable neither to the efficiency of quarantine, nor to the promotion of commerce.

If Mobile is entitled to a mixed quarantine board for the protection of her commerce, then, why are not Selma, Brewton, Montgomery, Birmingham, Decatur, and every other incorporated town in the State entitled to the same kind of a board? Let this condition of things prevail and at once the purity and efficiency of our quarantine system will be forever destroyed and quarantines declared either upon commercial considerations, or under the influence of panic. Both life and commerce would be subject to disaster under such a system.

Many other objections might be presented against the bill under discussion, but enough has been said to show that had it been enacted into law the powers of a board, organized in violation of what we believe best for the protection of both the lives and the commerce of the people of the State, would have been extended to a very dangerous degree.

Without any instruction from this Association, the State Health Officer felt compelled to antagonize the bill. Had he failed to do this he would have been untrue to the principles for which this Association has been contending for a quarter of a century, or more, the maintenance of which we believe absolutely essential to the creation of a pure, efficient, and permanent public health and quarantine system.

Mr. Clarke defended the bill with great ability, but by means of the valuable aid and coöperation of our President, and of the two members of the Board of Censors residing in Montgomery, the bill was defeated, an achievement that may be pronounced important and valuable.

Inasmuch as the action of the State Health Officer, and of those who coöperated with him in this matter,

was taken without instruction from this Association, a report thereof is submitted for approval or disapproval.

New Ordinances.

At the last meeting of this Association Dr. R. S. Hill, of Montgomery, offered the following resolutions:

1. *Resolved*, That registration be the only evidence accepted by this Association of the attendance of a counsellor.

2. *Resolved*, That every counsellor be notified of this action of the Association.

The resolutions were referred to the Board of Censors, and the Board, regarding the matter as one of importance, submits the following ordinance to cover it:

Be it ordained by the Medical Association of the State of Alabama, That, in the revision of the roll of counsellors, registration, made in strict compliance with the methods prescribed by this Association, shall be the only valid evidence of attendance upon meetings of this Association.

As the second resolution provides only for notification, it is deemed unnecessary to embody it in the ordinance, as, under a rule, elsewhere stated, the publication of the above ordinance in the volume of Transactions will be legal notice to all parties concerned.

The Board recommends the adoption of the ordinance submitted.

The Board also submits for adoption the following ordinances, which explain themselves:

Be it ordained by the Medical Association of the State of Alabama, That the names of all members of this Association whom the President desires to appoint as delegates to medical or other meetings shall be by him forwarded to the Secretary of the Association, who shall, after making a record thereof, return to the President for his signature commissions for all delegates so appointed, said commissions to be made out on official paper and to have the seal of the Association stamped thereon.

Be it ordained by the Medical Association of the State of Alabama, That sums of money, amounting to not less than ten nor more than twenty dollars, be annually placed in the hands of the Secretary and of the Treasurer to be used in defraying small ex-

penses, and that reports, with accompanying vouchers, shall be annually rendered by them for such expenditures.

Be it ordained by the Medical Association of the State of Alabama, That the publication of the proceedings of this Association in the annual volume of Transactions shall constitute legal notice to all counsellors, members and delegates, and to all other persons, as to the action of the Association upon any matter which has been submitted to it, provided, that such notice may be given to counsellors, members, and delegates by the Senior Censor through special circulars, issued in advance of the publication of the annual volume of Transactions, whenever in his judgment the interests of the Association demand such notice.

Bond of the Treasurer.

At the last meeting of this Association provision was made for requiring the Treasurer to furnish a bond in about double the amount of money likely to be under his charge at any one time, said bond to be made by an indemnity company deemed satisfactory to this Association, the Association defraying all expenses.

The Board reports that this duty has not been performed, but will receive attention in the near future.

In this connection the Board reports that seven hundred and forty-nine dollars and ninety-one cents of the funds of the Association were on deposit in the Josiah Morris Bank, Montgomery, at the time of its recent suspension. Efforts are being made for the bank to resume business, by and with the consent of the depositors. Persons who are thoroughly acquainted with the condition of the bank are unqualifiedly of the opinion that the interests of depositors will be much better subserved by granting the bank time to meet its liabilities than by forcing it into immediate liquidation. This course is advised by the Board, and it is recommended that the Senior Censor and the Treasurer be authorized to give their written consent for the bank to resume business on the terms proposed by it, that is, by the payment, from time to time, of fixed per centages of the deposits, the entire deposits to be paid by or before the expiration of two years.

Attorney.

Several years ago Col. Tompkins, who had acted as the legal adviser of this Association, died, since which

time the Association has had no retained attorney. Recently, an arrangement was made with the firm of Watts, Troy & Caffey, of Montgomery, to act as the legal advisers of the Association. It is recommended that this action of the Board be approved.

Dry Tortugas.

Information has reached the Board that Dry Tortugas, an island seventy miles distant from Key West, Fla., and which for a number of years has been used as a refuge and quarantine station for infected ships, has been discontinued for such purpose by the general government, with the intention of converting it into a naval station. The health authorities of Florida, believing the island valuable and essential as a quarantine and disinfecting station for ships, and not suitable for a naval station, are vigorously opposing the proposed change.

Whilst this Board does not possess adequate information upon which to express a positive opinion as to the merits of the matter, it has no hesitation in declaring that there should exist at several points in the Gulf of Mexico refuge stations for infected ships sufficiently removed from the main land as to prevent all possibility of endangering places thereon.

The Board recommends the adoption of the above expression of views.

Inter-State Notification as to the Presence of Yellow Fever.

A communication referring to the question of interstate notification as to the presence of yellow fever was recently received by the State Health Officer from Dr. Souchon, President of the Louisiana State Board of Health. After due consideration of the subject embraced in the communication, the Board recommends that the entire matter be referred to the State Health Officer, with power to act in the premises.

The Board wishes to declare, however, that such an agreement should exist among the health authorities of the Gulf States, especially, as would guarantee that a first case of yellow fever, or one deemed suspicious of

being such, wherever occurring in their respective territories, would be certainly and promptly announced.

Resolution as to Working Convicts in Mines.

The following resolution, offered by Dr. Judson Davie, was referred to the Board of Censors:

Resolved, That the Committee of Public Health of this Association be and is hereby authorized and instructed to prepare and submit to the next General Assembly a bill for such legislation as will, in the judgment of the Committee, effectually prevent such convicts as are physically unfit to work in mines from being required to perform labor of that kind, and that said Committee shall urge the enactment of such bill into law.

After due consideration of the resolution, the Board of Censors recommend that it be not adopted, and assign the following reasons for such recommendation:

The State provides a Board of Convict Inspectors, one of whom must be a physician, whose duty it is to see that all convicts are humanely and properly treated. Believing it to be the duty of such Board to provide that no convict shall be required to work in a mine who is physically unfit for such labor, it might with justice be regarded as an encroachment upon the prerogatives of that Board were this Association to take the action contemplated in the resolution, hence the recommendation, already stated, that the resolution be not adopted.

Committee on Sociological Science.

After consideration of the subject brought to the attention of the Association in a letter from Dr. R. R. Kime, of Atlanta, Ga., Chairman of Tri-State Sociological Committee (see page 74) and referred to this Board, recommendation is made, in compliance with a request contained in said letter, that a committee of three be appointed to coöperate with the Committee of the Tri-State Society in furthering the objects set forth in Dr. Kime's letter. The Board further recommends that the President of the Association, Dr. Cunnigham, be one of the members of the Committee, and that he be requested to appoint the other two members.

Letter of Dr. H. G. Perry, Treas., Referring to Banks of Deposit, and to the Case of Dr. A. J. Coley.

In compliance with the request contained in a letter from Dr. H. G. Perry, Treasurer (see page 69), and for the reasons therein stated, the Board recommends that the First National Bank of Greensboro, in this State, be named as one of the banks of deposit for the funds of the Association.

The explanation which Dr. Perry makes, in the letter referred to above, of the clerical error which resulted in the name of Dr. A. J. Coley, of Alexander City, being dropped from the House of Counsellors last year, is deemed satisfactory and justifies the Board in recommending that the name of Dr. Coley be restored to the House of Counsellors, without any loss of rank on account of the error, and with an expression of regret that such an error occurred.

Salaries.

The Board, basing its action upon a suggestion made by the President in his message, and also upon its own conception of justice and right, unanimously recommend that the salary of the State Health Officer be increased to two thousand and five hundred dollars per annum.

The Board also recommends that the salary of the Treasurer be increased twenty dollars per annum, which will make his total salary one hundred and twenty dollars.

This recommendation for an increase of salary is based upon the fact that under the present system of registration the Treasurer performs work which was formerly done by an assistant secretary, and for which twenty dollars was annually paid. Inasmuch as this additional duty increases to that extent the work of the Treasurer we deem it fair that his salary shall be increased to the extent mentioned.

The Board also recommends that the amount paid the clerk in the office of the State Board of Health out of the annual appropriation made by the State be increased from five to seven hundred dollars per annum. This addition to the salary of the clerk is rendered possible by the recent increase of the appropriation made by the State, and is fully justified, not only by the work demanded, but by comparison with salaries paid clerks in other departments of State work.

The Issuance of the Volume of Transactions.

In order to facilitate the earlier publication of the volume of Transactions than has been the case for several years past, and owing to special and temporary conditions that exist, the Board recommends that it be permitted to expend not more than one hundred dollars of the funds of the Association in obtaining special and competent assistance in preparing for the press the matter to appear in the volume.

Loyalty to the System of Organization.

Believing that the utmost harmony in our ranks is essential to the fullest achievement of the noble objects for which we are striving, the Board deems the time appropriate for appealing to the members to carefully study and maturely reflect upon the principles incorporated in our Constitution. Philosophy of the broadest and deepest kind underlies and is interwoven with those principles, to understand which requires both study and reflection, but, once understood, the judgment as to their correctness rests upon the solid rock of conviction, and becomes impregnable to every assault.

A hurried reading of the Constitution is wholly inadequate to enable one unfamiliar with it to thoroughly comprehend the reasons why it was so constructed. It must first be studied analytically, so as to clearly separate and set apart the great coördinate features contained in it, and then it must be studied synthetically, so as to appreciate how nicely the coördinate parts have been put together to constitute one symmetrical and coherent whole.

It should be the ambition of every member of the Association to thoroughly understand, both theoretically and practically, our system of organization, and then to equip himself with every argument needed to repel attacks, come when and how they may. There is but one remedy for antagonism to, or lukewarmness in support of, the system, and that is to study it until the reasons upon which it is founded become clear and convincing. That such result will follow study does not admit of a doubt.

Some counsellors and members regard this Association simply as a body of doctors, voluntarily united for scientific and social purposes.

It is this and more. Others regard the function of examining applicants for license to practice medicine as its great dominating feature. It is this, and more. Either one of these views is narrow and incomplete, and may be compared to looking through a pin hole at a broad and beautiful panorama, where one sees a part, it may be an important part, but fails to see the whole, in its grand and combined proportions.

As important as the functions mentioned are conceded to be, they become dwarfed when compared with our duties and rights as boards of health for the counties and the State. Herein resides the function that gives us the opportunity of demonstrating the usefulness and beneficence of our system of organization, and the promptness with which it may be set into operation whenever an emergency demands.

We would not be understood as insisting that counsellors and members are not entitled to entertain their own ideas as to principles, plans, and policies; on the contrary, we announce that they are, but, should they differ as to the established principles and avowed plans and policies of the Association, it is their right and their duty to come upon the floor of this Association and proclaim and defend their views in open session. When the matter has been discussed and settled, all should in good faith accept the decision as emanating from the supreme arbiter of our differences.

By living up to this proposition and by thoroughly informing ourselves as to the merits of our system, we may press forward in the field of sanitary work, feeling assured that the future holds in store for us a rich reward of useful achievement. When that good time comes we will all be thoroughly harmonious in spirit and effort, and intensely loyal to the cause we have helped to establish upon a solid foundation.

PART II.—EXAMINATIONS BY THE STATE BOARD FOR LICENSE TO PRACTICE MEDICINE.

FROM MARCH 31, 1900, TO MARCH 31, 1901.

Total number examined	13
Number granted certificates	6
Number refused certificates	7
Percentage of rejections	53.82
Number of graduates examined	11
Number of graduates granted certificates	6
Number non-graduates examined	2
Number non-graduates granted certificates	0

The examinations were as follows:

JACKSON PARK FIELDS (colored), Meharry, 1900. Certificate refused.

HENRY MARCELLUS MARTIN, JR., University of Virginia, 1899. Certificate granted.

HENRY GRAHAM SELLERS, Vanderbilt, 1900. Certificate refused. Appeal from Jefferson County Board.

LOCHLIN MINOR WINN, Tulane, 1900. Certificate granted.

BENTON MCMILLAN HALL, Tulane, 1900. Certificate granted.

CHARLES AMOS PLAINE (colored), Meharry, 1900. Certificate granted.

ALFRED FLOURNOY GRIGGS, Atlanta Medical College, 1895. Certificate granted. Appeal from Jefferson County Board.

OSCAR WILKINSON, Tulane, 1896. Certificate refused.

ASA ELWYN BALLARD, non-graduate, Pulte, three courses. Certificate refused.

ROBERT LEON HILL (colored), Howard Medical College, 1897. Certificate refused. Second examination.

PHILIP KING NORMAN, non-graduate. Certificate refused.

PERCY HOGAN WOODHALL, University of Nashville, 1896. Certificate granted.

ELLIS ANDREWS DALE (colored), Cleveland Homeopathic Medical College, 1900. Certificate refused.

EXAMINATION PAPERS ACCOUNT.

1900-1901.

Dr. W. H. Sanders, Senior Censor, M. A. S. A.,
In account with
The State Medical Association.

Debits.

To balance on hand from last year		$149 50
Cash for examination papers and certificates		266 00
Cash returned by State Board Health account, (borrowed last year)		111 70
To total receipts		$527 20

Credits.

By cash to Ed. C. Fowler & Co., two boxes seals for certificates		$ 75
D. Pope, 100 tin tubes for certificates		22 50
T. Fitzwilliam & Co., certificates		15 00
Expressage on certificates		40
John L. Cobbs & Co., ribbon for certificates		5 00
T. Fitzwilliam & Co., certificates		8 50
Expressage on certificates		55
Expressage on 7 packages examination papers		3 65
D. Pope, 100 tin tubes		22 50
Expressage on examination papers		65
Expressage on examination papers		45
Expressage on examination papers		1 45
John L. Cobbs & Co., ribbon for certificates		5 00
Crown Printing Co., examination paper blanks, etc		120 50
T. Fitzwilliam & Co., certificates		15 00
Postage on examination papers and certificates		33 54
Expressage on examination papers from Mobile		40
Expressage on examination papers from Tuscaloosa		65
Loaned State Board of Health account		237 30
By total expenditures		$493 79

RECAPITULATION.

To total receipts April 1, 1900, to April 1, 1901.....$527 20
By total expenditures April 1, 1900, to April 1, 1901..... 493 79

To balance on hand.....$ 33 41

The undersigned, appointed Special Auditing Committee, have examined this account and find the same correct.

W. M. WILKERSON, M. D.
GLENN ANDREWS, M. D.

THE BOOK OF THE RULES ACCOUNT.

April 1, 1900, to April 1, 1901.

To balance on hand from last year.....$16 24
Cash for six copies Book of the Rules at 50c..... 3 00

To total receipts $19 24
By postage on 15 copies Book of the Rules 1 80

To balance on hand..... $17 44

NOTE—Eleven copies of the Book of Rules were distributed *gratis.*

EXAMINATIONS BY THE COUNTY BOARDS FOR LICENSE TO PRACTICE MEDICINE.

1900-1901.

Total number examined..... 133
Number granted certificates..... 120
Number refused certificates..... 13

The applicants were graduates of the following colleges:

Medical College of Alabama.....	29	successful 28, rejected 1
Vanderbilt Medical College	18	successful 14, rejected 4
Birmingham Medical College....	12	successful 12, rejected 0
University of the South.....	9	successful 9, rejected 0
Chattanooga Medical College....	9	successful 8, rejected 1
Memphis Hospital Med. Col.....	8	successful 8, rejected 0
University of Nashville.....	7	successful 6, rejected 1
Tulane Medical College.....	6	successful 6, rejected 0
University of Virginia.....	4	successful 3, rejected 1
Maharry Medical College.....	5	successful 4, rejected 1

Grant University.....	2	successful	2, rejected 0
Columbia Medical College.....	2	successful	2, rejected 0
Leonard Medical College.....	1	successful	1, rejected 0
Montezuma Medical College	1	successful	1, rejected 0
Baltimore Medical College.....	1	successful	1, rejected 0
University of Georgia.....	1	successful	1, rejected 0
Barnes Medical College.....	1	successful	1, rejected 0
University of Tennessee.....	2	successful	2, rejected 0
Georgia Electic Med. Col.....	1	successful	1, rejected 0
Johns Hopkins.....	1	successful	1, rejected 0
Atlanta Medical College	2	successful	1, rejected 1
Jefferson Medical College.....	1	successful	1, rejected 0
College Phys. & Surg. N. Y.....	1	successful	1, rejected 0
University of Pennsylvania.....	1	successful	1, rejected 0
University City New York.....	1	successful	1, rejected 0
Georgia College Med. & Surg....	1	successful	1, rejected 0
Denver Medical College.....	1	successful	1, rejected 0
Herring Medical College.....	1	successful	1, rejected 0
St. Louis Medical College.....	1	successful	0, rejected 1
New Orleans University.....	1	successful	0, rejected 1
Atlanta Col. Phys. & Surg.....	1	successful	0, rejected 1
Louisville Medical College.....	1	successful	1, rejected 0

The examinations were as follows:

Autauga County Board—Hallett Webster Thompson, M. D., Tulane, 1900. Certificate granted.

Elbert Horton Downs, M. D., Chattanooga Medical College, 1900. Certificate granted.

John Edward Wilkinson, Jr., M. D., University of South,1900. Certificate granted.

Barbour County Board—William P. McDowell, M. D., Medical College Alabama, 1900. Certificate granted.

Christopher Hugh McDonald, M. D., Medical College Alabama, 1900. Certificate refused.

Baldwin County Board—No examinations reported.

Bibb County Board—Albert Milton Wooley, M. D., Medical College Alabama, 1900. Certificate granted.

Charles P. Martin, M. D., Vanderbilt, ... Certificate granted.

John Harrison Owens, M. D., Memphis College, 1899. Certificate granted.

William Battle Buntin, M. D., Memphis Hospital Medical College, ... Certificate granted.

RECAPITULATION.

To total receipts April 1, 1900, to April 1, 1901.....$527 20
By total expenditures April 1, 1900, to April 1, 1901..... 493 79

To balance on hand.....$ 33 41

The undersigned, appointed Special Auditing Committee, have examined this account and find the same correct.

W. M. WILKERSON, M. D.
GLENN ANDREWS, M. D.

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Chattanooga Medical College....	9	successful 8, rejected 1
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University of Nashville.....	7	successful 6, rejected 1
Tulane Medical College.....	6	successful 6, rejected 0
University of Virginia.....	4	successful 3, rejected 1
Maharry Medical College.....	5	successful 4, rejected 1

Grant University.....	2	successful 2, rejected 0
Columbia Medical College.....	2	successful 2, rejected 0
Leonard Medical College.....	1	successful 1, rejected 0
Montezuma Medical College	1	successful 1, rejected 0
Baltimore Medical College.....	1	successful 1, rejected 0
University of Georgia.....	1	successful 1, rejected 0
Barnes Medical College.....	1	successful 1, rejected 0
University of Tennessee.....	2	successful 2, rejected 0
Georgia Electic Med. Col.....	1	successful 1, rejected 0
Johns Hopkins.....	1	successful 1, rejected 0
Atlanta Medical College	2	successful 1, rejected 1
Jefferson Medical College.....	1	successful 1, rejected 0
College Phys. & Surg. N. Y.....	1	successful 1, rejected 0
University of Pennsylvania.....	1	successful 1, rejected 0
University City New York.....	1	successful 1, rejected 0
Georgia College Med. & Surg....	1	successful 1, rejected 0
Denver Medical College.....	1	successful 1, rejected 0
Herring Medical College.....	1	successful 1, rejected 0
St. Louis Medical College.....	1	successful 0, rejected 1
New Orleans University.....	1	successful 0, rejected 1
Atlanta Col. Phys. & Surg.....	1	successful 0, rejected 1
Louisville Medical College.....	1	successful 1, rejected 0

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Baldwin County Board—No examinations reported.

Bibb County Board—Albert Milton Wooley, M. D., Medical College Alabama, 1900. Certificate granted.

Charles P. Martin, M. D., Vanderbilt, ... Certificate granted.

John Harrison Owens, M. D., Memphis College, 1899. Certificate granted.

William Battle Buntin, M. D., Memphis Hospital Medical College, ... Certificate granted.

Blount County Board—James Clinton Moore, M. D., University of Nashville, 1900. Certificate granted.

James Edward Leach, M. D., University of Nashville, 1900. Certificate granted.

Jesse Brown, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Joseph Cobb Walker, M. D., University Nashville, 1900. Certificate granted.

Bullock County Board—George Martin Guthrie, M. D., Medical College of Alabama, 1900. Certificate granted.

Anderson Milton Williams (colored), M. D., Leonard Medical College, 1900. Certificate granted.

James L. Bowman, M. D., University of Virginia, 1897. Certificate granted.

Butler County Board—No examinations reported.

Calhoun County Board—Amzi Jones, M. D., Vanderbilt, 1900. Certificate granted.

Shelton Theodore Meharg, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Eber Austin Pruitt, M. D., Medical College of Alabama, 1900. Certificate granted.

Chambers County Board—No examinations reported.

Cherokee County Board—Ira Cheleous Ballard, M. D., Chattanooga Medical College, 1900. Certificate granted.

William Sparks McElrath, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Chilton County Board—W. E. Prescott, M. D., Birmingham Medical College, 1900. Certificate granted.

M. F. Parnell, M. D., (college and date of graduation not given). Certificate granted.

Virgil Ogilver Campbell, M. D., Birmingham Medical College, Certificate granted.

Choctaw County Board—No examinations reported.

Clarke County Board—No examinations reported.

Clay County Board—James Olin Griffin, M. D., Medical College of Alabama, 1900. Certificate granted.

Orlando E. Black, M. D., University of the South, 1901. Certificate granted.

Cleburne County Board—William Henry Greer, M. D., Grant University, 1900. Certificate granted.

Thomas Tyler Wheeler, M. D., Chattanooga Medical College, 1900. Certificate granted.

Lee Roy Wright, M. D., University of Nashville, 1900. Certificate granted.

Coffee County Board—No examinations reported.

Colbert County Board—No examinations reported.

Conecuh County Board—No examinations reported.

Coosa County Board—John Calvin McLeod, M. D., Birmingham Medical College. Certificate granted.

Joseph Marshall Smith, M. D., Medical College of Alabama. Certificate granted.

Covington County Board—William Whatley Pearson, M. D., Medical College of Alabama.

Crenshaw County Board—Roddie Richardson, M. D., Medical College of Alabama, 1897. Certificate granted. (Papers not sent up until July, 1900.)

Thomas Carey Eiland, M. D., Montezuma University, Medical Department. (Examination held in 1897. Papers not sent up until July, 1900).

Cullman County Board—Luther Hays, M. D., Grant University, 1900. Certificate granted.

Dale County Board—No examinations reported.

Dallas County Board—Emmet Lee Fuller, M. D., Medical College of Alabama, 1900. Certificate granted.

Carlyle Kyser Yates, M. D., Baltimore Medical College, 1900. Certificate granted.

William Bradley Palmer, M. D., Tulane, 1898. Certificate granted.

DeKalb County Board—Joseph H. Bogle, M. D., Vanderbilt, 1900. Certificate granted.

Sidney Johnston Vann, M. D., Medical Department University of Georgia, 1900. Certificate granted.

Elmore County Board—Jesse Gulledge, M. D., Medical College of Alabama, 1900. Certificate granted.

Byron T. Dozier, M. D., Barnes Medical College, 1897. Certificate granted.

James Marvin Wallace, M. D., Vanderbilt, 1899. Certificate granted.

Joseph W. Maddox, M. D., University of Tennessee, 1900. Certificate granted.

Joseph Owen Dennison, M. D., Vanderbilt, 1893. Certificate refused.

Escambia County Board—No examinations reported.

Etowah County Board—William Henry Coleman, (colored), Meharry, 1900. Certificate refused.

Fayette County Board—William Wallace Duncan, M. D., Birmingham Medical College, 1900. Certificate granted.

James Lucian Batson, M. D., Vanderbilt, 1900. Certificate granted.

Tarley William Jones, M. D., Vanderbilt, 1900. Certificate granted.

Franklin County Board—Walter A. Gresham, M. D., Vanderbilt, 1900. Certificate granted.

John David Lee, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Geneva County Board—Charley Bob Powell, M. D., Medical College of Alabama, 1900. Certificate granted.

Oscar Lee Rivenbark, M. D., Georgia Eclectic Medical College, 1893. Certificate granted.

Charles Braxton McKinnon, M. D., Tulane, 1892. Certificate granted.

Greene County Board—No examinations reported.

Hale County Board—William S. Anderson, M. D., Tulane,, 1900. Certificate granted.

William Henry Coleman, M. D., (colored), Meharry, 1900. Certificate refused.

Mark Christleab Otts, M. D., Medical College of Alabama, Certificate granted.

Quarles Jemison Brown, M. D., Medical College of Alabama, 1900. Certificate granted.

Dodson Wright Tidmore, M. D., University of the South, 1899. Certificate granted.

John Webb McGehee, M. D., Tulane, 1900. Certificate granted.

Henry County Board—James Robert Vann, M. D., Medical College Alabama, 1899. Certificate granted.

Thomas Joseph Kennedy, M. D., University of the South, 1899. Certificate granted.

Jackson County Board—William Bogart, Jr., M. D., Vanderbilt, 1900. Certificate granted.

Hugh C. McRee, University of Nashville, 1898. Certificate refused.

Eugene R. Smith, Jr., M. D., Chattanooga Medical College, 1900. Certificate granted.

William Richard McRee, Vanderbilt, 1887. Certificate refused.

William Earl Noel, M. D., Chattanooga Medical College, 1900. Certificate granted.

***Jefferson County Board*—Henry Graham Sellers, M. D., Vanderbilt, 1900. Certificate refused.**

Carl Alexander Fox, M. D., Tulane, 1900. Certificate granted.

Frank Allemong Lupton, M. D., Johns Hopkins, 1899. Certificate granted.

Zachariah Britton Chamblee, M. D., Birmingham Medical College, 1900. Certificate granted.

Joseph Jefferson McEvoy, M. D., Atlanta Medical College, 1890. Certificate refused.

John Locke Worcester, M. D., Birmingham Medical College, 1900. Certificate granted.

Joseph Robbins Wetherbee, M. D., Jefferson Medical College, 1900. Certificate granted.

John Green Pittman, M. D., Columbia Medical College, 1900. Certificate granted.

Charles Preston Eichelberger, M. D., University of Virginia, 1896. Certificate refused.

George Phillip Heard, M. D., College Physicians and Surgeons, N. Y., 1894. Certificate granted.

Nicholas Flood Hix, M. D., University of Virginia, 1900. Certificate granted.

Modie Ezra Cunningham, M. D., Birmingham Medical College, 1900. Certificate granted.

Urban Joseph Whitehead Peters, M. D., University of Pennsylvania, 1898. Certificate granted.

Gaston Torrance, M. D., University of Virginia, 1897. Certificate granted.

Rufus Crockett McGahey, Vanderbilt, 1878. Certificate refused.

Andrew Sitlington Warwick, M. D., University City of N. Y. Certificate granted.

Hamilton Ralls Coston, M. D., Vanderbilt, 1889. Certificate granted.

***Lamar County Board*—George Marvin Milner, M. D., Birmingham Medical College, 1900. Certificate granted.**

Arlando Berry Collins, M. D., Vanderbilt, 1900. Certificate granted.

***Lauderdale County Board*—No examinations reported.**

***Lawrence County Board*—Thomas Howard Irwin, M. D., Vanderbilt, 1900. Certificate granted.**

***Lee County Board*—No examinations reported**

Limestone County Board—No examinations reported.

Lowndes County Board—Mack Milton Strickland, M. D., Medical College of Alabama, 1900. Certificate granted.

Robert Lenoir Russell, M. D., Georgia College Medicine and Surgery, 1900. Certificate granted.

Alex. Hood, M. D., Vanderbilt, 1900. Certificate granted.

Charles Murray Rudolph, M. D., Medical College Alabama, 1900. Certificate granted.

Macon County Board—Phillip Malcolm Lightfoot, M. D., Medical College Alabama, 1900. Certificate granted.

Frank Means Johnston, M. D., University of South, 1900. Certificate granted.

Madison County Board—T. H. Brandon, M. D., Denver Medical College, 1898. Certificate granted. (Examination held in 1899. Papers not sent up until October, 1900).

James Fulton Burman, M. D., University of Nashville, 1899. Certificate granted. (Examination held in 1899. Papers not sent up until October, 1900).

Justina Lorena Ford, M. D., Herring Medical College (Chicago), 1899. Certificate granted.

Roy M. Buchanan, M. D., University Tennessee, 1900. Certificate granted.

Marengo County Board—No examinations reported.

Marion County Board—James Luther Patton, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Marshall County Board—Montgomery Gilbert Shipp, M. D., Vanderbilt, 1900. Certificate granted.

John Calhoun Harris, M. D., Chattanooga Medical College, 1900. Certificate granted.

Daniel Parris, M. D., Chattanooga Medical College, 1900. Certificate granted.

D. Bruce Collins, M. D., Vanderbilt, 1900. Certificate granted.

Delimus Wesley Wilson, Chattanooga Medical College, 1900. Certificate granted.

William Pelham Turk, M. D., Atlanta Medical College, 1892. Certificate granted.

William Addison Elrod, M. D., University of South, 1900. Certificate granted.

James Tolliver Elrod, M. D., University of South, 1900. Certificate granted.

Mobile County Board—Marion Joseph Bancroft, M. D., Medical College of Alabama, 1899. Certificate granted.

Emmitt Hilbert Bottom, M. D., St. Louis Medical College, 1897. Certificate refused.

William Claiborne Williams, M. D., Medical College of Alabama, 1900. Certificate granted.

William Williard S. Mason, M. D., New Orleans University, 1900. Certificate refused.

Monroe County Board—Russell Aubrey Smith, M. D., Medical College Alabama. Certificate granted.

Edward Lamar Kelly, M. D., Medical College Alabama, 1900. Certificate granted.

Montgomery County Board—Coleman Ferrell Pearson, M. D., Medical College of Alabama, 1900. Certificate granted.

Morgan County Board—Walter Scott Rountree, M. D., Birmingham Medical College, 1900. Certificate granted.

Henry Roger Williams, M. D., (colored), Meharry, 1900. Certificate granted.

Perry County Board—Alfred Dennis Simington, M. D., (colored), Meharry. Certificate granted.

Pickens County Board—No examinations reported.

Pike County Board—Benjamin C. Stewart, M. D., Medical College of Alabama, 1900. Certificate granted.

John David Johnston, M. D., Atlanta College Physicians and Surgeons, 1900. Certificate refused.

Francis Asbury Boswell, M. D., Medical College of Alabama, 1900. Certificate granted.

Randolph County Board—Andrew Jackson Clardy, M. D., Chattanooga Medical College, 1900. Certificate refused.

Russell County Board—No examinations reported.

St. Clair County Board—James Perry Turner, M. D., Birmingham Medical College, 1900. Certificate granted.

Shelby County Board—Andrew Wailes Horton, M. D., Medical College of Alabama, 1899. Certificate granted.

Charles Thomas Acker, M. D., Birmingham Medical College, 1900. Certificate granted.

Robert Samuel Glasgow, M. D., University of South, 1900. Certificate granted.

Sumter County Board—Dudley Stennis, M. D., University of Nashville, 1900. Certificate granted.

Robert Ellyson Harwood, M. D., Medical College of Alabama, Certificate granted.

William Henry Stephens, M. D., Meharry, 1900. Certificate granted.

Duke Price Jones, M. D., Medical College Alabama, 1900. Certificate refused.

Talladega County Board—No examinations reported.

Tallapoosa County Board—No examinations reported.

Tuscaloosa County Board—Alston Fitts, M. D., Columbia University, N. Y., 1895. Certificate granted.

John Hester Ward, M. D., University of the South, 1899. Certificate granted.

Walker County Board—No examinations reported.

Washington County Board—Rowell Wilbur Shaw, M. D., Memphis Hospital Medical College, 1900. Certificate granted.

Wilcox County Board—Phillip Van Buren Speir, M. D., Medical College of Alabama, 1900. Certificate granted.

Winston County Board—William E. Howell, M. D., Birmingham Medical College, 1900. Certificate granted.

A. Costa Watts, M. D., Louisville Medical College, 1892. Certificate granted.

PART III. REPORT OF THE STATE COMMITTEE OF PUBLIC HEALTH.

For the past year, in addition to the usual diseases, smallpox and scarlet fever have prevailed to a considerable extent. The former disease continues to prevail much as it has done for the past four years, and so far as we are able to see will so continue until the State gives us the legislation necessary to exterminate it. This the State has not done, therefore, the responsibility rests upon the law-makers and not upon the doctors. As health officials we can only advise, and if our advice is not heeded by the State, county, and municipal authorities the onus does not rest upon our shoulders.

In all counties where the Commissioners supply the necessary funds and give the medical authorities proper support outbreaks of smallpox are promptly controlled, but in counties where a different policy is pursued the disease retains its foothold and spreads to other counties. It is clear, that if extermination can be accomplished in one county it can be in another—hence a simultaneous effort to exterminate the disease, made

by all of the counties in the State, would very soon prove successful. Such simultaneous effort can not be secured without additional legislation, and this we have been unable to obtain.

During the year scarlet fever has had wide prevalence, but fortunately has been mild in type. In many of the places where the disease appeared its origin could not be traced, and after its appearance in a locality frequently the spread of the disease from one patient to another could not be satisfactorily accounted for.

Diphtheria has also occurred in a good many localities, but has had no extensive prevalence. Recently, a circular letter of inquiry as to the number of cases of smallpox, scarlet fever, and diphtheria *then* existing in the various counties of the State was sent out.

The subjoined table gives the reports received from all the counties in the State except six:

Report on the Smallpox, Diphtheria, and Scarlet Fever Situation in the Various Counties—April, 1901.

COUNTIES.	Smallpox. No. Cases.	Diphtheria. No. Cases.	Scarlet Fever No. Cases.
Autauga	0	0	0
Baldwin	0	0	0
Barbour	25	0	0
Bibb	0	0	0
Blount	0	0	0
Bullock	0	0	0
Butler	0	0	0
Calhoun	25	0	0
Chambers	0	0	0
Cherokee	1	0	0
Chilton	2	0	0
Choctaw	0	0	0
Clarke	0	15	0
Clay	0	0	0
Cleburne	7	0	0
Coffee	0	0	0
Colbert	0	0	0
Conecuh	0	0	0
Coosa	0	0	0
Covington	0	0	0
Crenshaw	0	0	0

Report on the Smallpox, Diphtheria, and Scarlet Fever Situation in the Various Counties.—Continued.

COUNTIES.	Smallpox. No. Cases.	Diphtheria. No. Cases.	Scarlet Fever No. Cases.
Cullman	0	0	0
Dale	0	0	0
Dallas	10	0	2
DeKalb	0	0	0
Elmore	0	0	0
Escambia	0	0	4
Etowah	0	0	0
Fayette	0	0	0
Franklin	1	0	0
Geneva	0	0	0
Greene	0	0	0
Hale	0	0	0
Henry	0	0	3
Jackson	3	0	0
Jefferson	35	6	16
Lamar	0	0	0
Lawrence	0	0	0
Lauderdale	2	0	0
Lee	10	0	0
Limestone	1	0	0
Lowndes	0	0	0
Macon	0	0	0
Madison	85	0	0
Marengo	5	0	0
Marion	0	0	0
Marshall	0	0	0
Mobile	0	0	0
Monroe	0	0	0
Montgomery	1	1	2
Morgan	50	0	0
Perry	0	0	0
Pickens	0	0	0
Pike	0	0	0
Randolph	0	0	0
Russell	5	0	0
St Clair	10	0	0
Shelby	4	0	1
Sumter	5	0	0
Talladega	0	0	0

Report on the Smallpox, Diphtheria, and Scarlet Fever Situation in the Various Counties.—Continued.

COUNTIES.	Smallpox, No. Cases.	Diphtheria. No. Cases.	Scarlet Fever No. Cases.
Tallapoosa	0	0	5
Tuscaloosa	5	0	2
Walker	15	2	0
Washington	0	0	0
Wilcox	0	0	0
Winston	0	0	0
Total	307	24	35

THE COLLECTION OF VITAL AND MORTUARY STATISTICS.

The work of collecting vital and mortuary statistics for the year just closed has been attended by much the same results as for several years past.

In some counties the work is very satisfactorily done and in other counties nothing is accomplished. Betwixt these two extremes every gradation of success is found.

The following classification is submitted, giving, as it does, a very fair summary of results:

1. Counties that have done excellent work.

Baldwin, Bullock, Clay, Conecuh, DeKalb, Escambia, Etowah, Fayette, Jackson, Jefferson, Lawrence, Mobile, St. Clair, Shelby, Winston—15.

2. Counties that have done fairly good work:

Barbour, Butler, Calhoun, Coosa, Crenshaw, Dallas, Hale, Elmore, Geneva, Madison, Morgan, Pike, Randolph, Sumter, Talladega, Tallapoosa, Tuscaloosa.—17.

3. Counties in which the work has been imperfectly done:

Bibb, Blount, Cherokee, Choctaw, Clarke, Cleburne, Coffee, Cullman, Henry, Lamar, Monroe, Marshall—12.

4. Counties in which the work has been practically neglected.

Autauga, Chambers, Chilton, Colbert, Covington, Dale, Franklin, Greene, Lauderdale, Lee, Limestone, Lowndes, Macon, Marengo, Marion, Perry, Pickens, Russell, Walker, Washington, Wilcox—21.

The difference in results is very easily accounted for. In counties that appropriate adequate, or something like adequate, salaries for their health officers the work is satisfactorily carried on; in counties that appropriate very inadequate salaries, the work is very imperfectly done; in counties that appropriate no salaries at all, the work is wholly neglected.

But one remedy can be applied, and that is for the legislature of the State to enact a law making it mandatory on the commissioners of the several counties to appropriate adequate salaries for their health officers.

FINANCIAL STATEMENT.

THE STATE BOARD OF HEALTH,

In Account with *The State of Alabama*:

DEBITS.

1900.			
April 30,	To cash from Treasurer	$250	00
May 31,	cash from Treasurer	250	00
June 30,	cash from Treasurer	250	00
July 31,	cash from Treasurer	250	00
Aug. 31,	cash from Treasurer	250	00
Sept. 30,	cash from Treasurer	250	00
Oct. 31,	cash from Treasurer	250	00
Nov. 30,	cash from Treasurer	250	00
Dec. 31,	cash from Treasurer	250	00
1901.			
Jan. 31,	cash from Treasurer	250	00
Feb. 28,	cash from Treasurer	250	00
March 31,	cash from Treasurer	322	55
March 31,	cash returned for postage loaned Examination Papers account	33	54
March 31,	cash returned for postage loaned Book of Rules account	1	80
	Total receipts	$3,107	89

CREDITS.

1900.

April	1,	by cash due examination papers acct. from last year	$ 111 70
	10,	By cash for postage	10 00
	16,	cash for expressage on letter heads from St. Louis	1 10
	23,	cash for postage	10 00
	27,	cash for box rent	1 50
	30,	cash Health Officer's salary (April)	150 00
	30,	cash clerk's salary (April)	41 65
May	9,	cash postage	10 00
	14,	cash expressage on pkg from New Orleans	50
	19,	cash postage	10 00
	19,	cash W. U. Telegraph Co. (Montgomery)	2 63
	31,	cash Health Officer's salary (May)	150 00
	31,	cash clerk's salary (May)	41 65
June	5,	cash National Dispensatory	8 00
	9,	cash W. U. Telegraph Co. (Montgomery)	3 30
	9,	cash Postal Telegraph Co. (Mobile)	2 36
	9,	cash Dr. J. P. Furniss (expenses incurred in attending called meeting Public Health Committee)	3 00
	9,	cash Postal Telegraph Co. (Montgomery)	1 07
	12,	cash J. H. Stewart and F. L. Pettus, attorneys, for legal services Supreme Court (Perry county case)	100 00
	19,	cash postage	10 00
	30,	cash Health Officer's salary (June)	150 00
	30,	cash clerk's salary (June)	41 65
July	7,	cash Jas. E. Maddox, water cooler, etc.	4 95
	9,	cash telegram	25
	9,	cash telegram	45
	10,	cash postage	10 00
	10	cash box rent	1 50
	12	cash Postal Telegraph Co. (Montgomery)	1 72
	12	cash Emma Mack for scouring floor in office	50
	14,	cash to Chas. Wood for cleaning out office, moving books, etc, into cellar	1 50
	17,	for 1,000 stamped (2c) envelopes	21 20
	28,	postage	10 00
	31,	Health Officer's salary (July)	150 00
	31,	clerk's salary (July)	41 65

Aug.	2,	W. U. Telegraph Co. (Montgomery).....	5 24
	9,	drayage on books from Washington.....	25
	18,	envelopes (1c)	2 00
	20,	postage	10 00
	20,	Ed C. Fowler & Co. (stationery and office sup.)	6 20
	26,	W. U. Telegraph Co. (Mobile).....	1 60
	31,	Health Officer's salary (August).....	150 00
	31,	clerk's salary (August).....	41 65
Sept.	26,	postage	10 00
	26,	C. Y. Bogacki, screen for office window.....	3 00
	30,	Health Officer's salary (September).....	150 00
	30,	clerk's salary (September).....	41 65
Oct.	11,	drayage on books from Washington.....	25
	12,	box rent	1 50
	23,	postage and envelopes for circulars.....	11 50
	27,	expressage on pkg. from Huntsville	40
	31,	Health Officer's salary (October).....	150 00
	31,	Clerk's salary (October).....	41 65
Nov.	1,	expressage pkg. from St. Louis (Letter Hds.)	1 10
	10,	postage	10 00
	14,	W. U. Telegraph Co. (Montgomery).....	3 62
	30,	Health Officer's salary (November).....	150 00
	30,	clerk's salary (November).....	41 65
Dec.	12,	postage	10 00
	22,	postage for annual blanks	15 00
	29,	W. U. Telegraph Co. (Eutaw, Ala.).....	2 29
	31,	Health Officer's salary (December).....	150 00
	31,	clerk's salary (December)	41 65
1901.			
Jan.	1,	envelopes (1c) for circulars	8 00
	4,	Abe Griffin, carpenter work in office.....	1 45
	14,	1,000 stamped (2c) envelopes	21 20
	14,	Southern Bell Tel. & Tel. Co.....	80
	25,	postage	10 00
	28,	W. U. Telegraph Co. (Montgomery).....	3 08
	29,	box rent	1 50
	31,	Health Officer's salary (January).....	150 00
	31,	clerk's salary (January)	41 65
Feb.	8,	drayage on books from Washington.....	25
	20,	Ed. C. Fowler & Co. (office supplies)	17 35
	26,	postage	10 00
	28,	Health Officer's salary (February).....	150 00
	28,	clerk's salary (February).....	41 65

March 5,	Robt. F. Ligon, Supreme Court costs in Perry county case	21 50
20,	postage	10 00
30,	Watts, Troy & Caffey, attorneys (retainer fee)	50 00
30,	Geo. D. Barnard & Co., 4,000 letter heads.....	29 50
30,	W. U. Telegraph Co. (Montgomery).....	4 57
30,	E. L. Davant, cleaning and repairing typewriter	5 25
30,	postage	10 00
30,	Brown Printing Co. (blanks, etc.).....	173 00
30,	Morgan D. Jones, postal guide, with supplements	2 00
30,	Ed. C. Fowler & Co. (office supplies).....	6 10
30,	C. W. Ivey, register in chancery, Perry Co....	54 98
30,	box rent	1 50
30,	Postal Telegraph Co. (Mobile).....	3 04
30,	Montgomery Advertiser	2 00
30,	Postal Telegraph Co. (Montgomery).....	2 80
30,	Health Officer's salary (March).....	150 00
30,	clerk's salary (March).....	41 65
30,	Health Officer's expense acct. for the year	164 34
	Total expenditures $3,345 19	

RECAPITULATION.

By total expenditures April 1, 1900, to April 1, 1901.....$3,345 19	
To total receipts April 1, 1900, to April 1, 1901.....	3,107 89
By balance due examination papers account.....	237 30

The undersigned appointed special Auditing Committee, have examined this account and find the same correct.

W. M. WILKERSON, M. D.
GLENN ANDREWS, M. D.

During the reading of the report of the Board of Censors the separate sections thereof were submitted to the Association seriatim and acted upon in the order in which they were read.

The Board reported adversely to the adoption of the first recommendation of the President (see p. 14), or that proposing to change the organic law of the Association so as to confer the privilege of voting upon all mem-

bers of county societies in affiliation with the Association upon the payment of an annual fee of five dollars each.

Motion was made and seconded to concur in that section of the report, whereupon President Cunningham called Vice-President Pride to the chair and arose to a question of personal privilege, arguing earnestly and at considerable length in behalf of his recommendation.

Dr. Sanders, Chairman of the Board of Censors, also arose to a question of personal privilege and enthusiastically defended the positions set forth in the report.

The motion to concur in the section of the Report read was adopted.

The section of the Report referring to the President's second recommendation (see p. 15), or that proposing "that the Association offer a prize of twenty-five dollars for the best paper upon any one subject pertaining to Medical Topography or Climatology in this State" was next read. The Board advised that the recommendation of the President be not adopted in the form made, but suggested that the spirit of the recommendation might be carried out in the future in another way.

Upon motion this section of the Report of the Board of Censors was unanimously adopted.

The Report recommended that the Association endorse the President's third recommendation (see p. 15), namely, that a stenographer be employed to take down the proceedings of the meetings of the Association and to furnish type-written copies thereof.

Upon motion this section of the report was concurred in.

The Report proceeded to state that believing its action would be approved by the Association it had employed a stenographer for this meeting.

The Report endorsed the President's fourth recommendation (see p. 16), namely, that "the county societies have annual, semi-annual, or quarterly social entertainments as a part of their regular work," and expressed the belief that if carried out the effect of this recommendation would prove beneficial.

Dr. E. T. Camp, of Gadsden, offered the following resolution as an amendment to the section of the report under consideration:

Resolved, **That it is the sense of this Association that county medical societies should, at frequent intervals, invite members of other societies to attend their meetings, for the purpose of presenting papers upon medical subjects and engaging in such discussions as may arise, firmly believing that the adoption of this custom would be productive of much good, by promoting harmony of feeling, and interchange of views upon medical questions.**

The Board accepted the amendment, whereupon, this section of the Report as amended was adopted.

The Report took issue broadly with the President's fifth recommendation (see pp. 25-26), and advised that it be not adopted.

This section of the Report was discussed at considerable length by President Cunningham and Drs. Moody and Sanders. In the course of this argument President Cunningham admitted that last year he did regard it bad policy to appeal to the legislature to change our law regulating the practice of medicine, and so advised, but he insisted that conditions have changed, rendering what was bad policy then good policy now, just as a surgeon might advise against the amputation of an injured limb, but seeing it at a later period, when gangrene had set in, he would certainly change his advice.

Upon motion this section of the Report was unanimously adopted.

The next section of the Report warmly endorsed the President's sixth recommendation (see p. 33), namely that this Association adhere to its determination to erect a monument to the memory of the founder of, and long the distinguished leader in, our system of organization.

Upon motion this section of the Report was unanimously adopted.

The next section of the Report referred to the Reports of the Vice-Presidents and after being read was unanimously adopted.

The section referring to the Report of the Secretary was next read and unanimously adopted.

The section referring to the report of the Committee of Publication was next read and unanimously adopted.

The section referring to the report of the Treasurer was next read and unanimously adopted.

The section referring to the accounts of the State Health Officer was next read and unanimously adopted.

The section referring to the revision of the Minutes of 1900 was next read and unanimously adopted.

The section referring to delinquent County Societies was next read and unanimously adopted.

The next section referring to a new edition of the Book of the Rules and to New Charters was next read and unanimously adopted.

The section referring to a visit to Washington by the State Health Officer was next read and unanimously adopted.

The section referring to jails and poor houses was next read and unanimously adopted.

The section referring to an "Ordinance Enacted Last Year" and containing a proposed amendment to Article 70, section 14, of the Constitution of this Association, was next read and unanimously adopted, the proposed amendment to the Constitution having been read and being ordered to lie over until next year.

The section referring to legislation was next read and unanimously adopted.

At this point Dr. E. B. Ward, of Selma, asked permission to interrupt the reading of the report in order to submit a resolution, which being granted, he read the following resolution:

Resolved, That this Association warmly endorses the action of the State Health Officer, Dr. W. H. Sanders, and of those who co-operated with him, in opposing a bill entitled: "A Bill to Extend and Better Establish, Maintain and Regulate the Duties and Authority of the Quarantine Board of Mobile Bay," introduced into the recent session of the General Assembly by Hon. R. H. Clarke, of Mobile, and regards the defeat of the bill as an important achievement, in that, it prevented a dangerous interference with the general quarantine laws of the State.

Upon motion being made and seconded to adopt the resolution, Dr. Ward supported it by an earnest and enthusiastic argument, after which it was unanimously adopted by a rising vote.

The section of the report containing the drafts of four new ordinances was next read and adopted, each ordinance being voted upon separately.

The next section of the report referring to a bond for the Treasurer was read and unanimously adopted.

The next section of the report, referring to the employment of an attorney for the Association, was read and unanimously adopted.

The next section of the report referring to "Dry Tortugas" was read and unanimously adopted.

The next section of the report, referring to Inter-State Notification as to the presence of yellow fever, was read and unanimously adopted.

The next section of the report, referring to "Working Convicts in Mines," was read and unanimously adopted.

The next section of the report, referring to the appointment of a "Committee of Sociological Science," was read and unanimously adopted.

The next section of the report, referring to Banks of Deposit, was read and, upon motion to adopt, the Association refused to concur in the recommendation of the Board to the effect that the First National Bank of Greensboro be made one of the banks of deposit of the funds of the Association.

Motion was made to reconsider the vote just taken, and after some discussion and explanation, the Association adopted the motion.

The original question was then submitted and adopted.

The section of the report referring to the case of Dr. A. J. Coley, was then read and unanimously adopted.

The section of the report, headed "Loyalty to the Association," was next read and unanimously adopted.

The second part of the report, embracing Examinations for License to Practice Medicine by the State Board, Examination Papers Account, The Book of the Rules Account, and Examinations by the County Boards, was submitted without being read and adopted.

Part three of the report, embracing the report of the State Committee of Public Health, the Financial Statement of the State Board of Health, and the Collection of Vital and Mortuary Statistics, was submitted without being read and adopted.

Upon motion the report as a whole was then unanimously adopted.

Dr. W. H. Sanders, Chairman of the Committee on the Cochran Monument, submitted the following report:

To the President and Members of the Medical Association of the State of Alabama:

The plan proposed by the committee last year for providing the funds necessary for the erection of a monument to Dr. Jerome Cochran, deceased, was that fifteen hundred dollars be raised annually by the County Medical Societies, the amounts to be contributed by the several societies to be proportioned to their numerical strength and financial ability.

It was estimated that five thousand dollars would be needed, therefore, three years or a little more would be required to secure the necessary sum.

In pursuance of the authority granted the committee, the following assignment of amounts to be raised by the several counties for the present year is submitted:

Autauga county, $10.00; Baldwin, $7.00; Barbour, $35.00; Bibb, $20.00; Blount, $15.00; Bullock, $38.00; Butler, $30.00; Calhoun, $45.00; Chambers, $15.00; Cherokee, $12.00; Chilton, $10.00; Choctaw, $12.00; Clarke, $20.00; Clay, $15.00; Cleburne, $12.00; Coffee, $12.00; Colbert, $12.00; Conecuh, $20.00; Coosa, $12.00; Covington, $6.00; Crenshaw, $20.00; Cullman, $15.00; Dale, $20.00; Dallas, $60.00; DeKalb, $15.00; Elmore, $20.00; Escambia, $12.00; Etowah, $20.00; Fayette, $12.00; Franklin, $15.00; Geneva, $16.00; Greene, $16.00; Hale, $20.00; Henry, $25.00; Jackson, $18.00; Jefferson, $200.00; Lamar, $8.00; Lauderdale, $15.00; Lawrence, $14.00; Lee, $12.00; Limestone, $16.00; Lowndes, $20.00; Macon, $12.00; Madison, $50.00; Marengo, $30.00; Marion, $7.00; Marshall, $10.00; Mobile, $70.00; Monroe, $15.00; Montgomery, $100.00; Morgan, $12.00; Perry, $10.00; Pickens, $20.00; Pike, $18.00; Randolph, $20.00; Russell, $12.00; Shelby, $16.00; St. Clair, $15.00; Sumter, $20.00; Talladega, $45.00; Tallapoosa, $25.00; Tuscaloosa, $25.00; Walker, $20.00; Washington, $8.00; Wilcox, $30.00; Winston, $5.00. Total, $1,542.00.

The Committee proposes to solicit the active co-operation of one or more members of each County Society in an effort to raise the above amounts.

A special receipt book will be kept, in which will be recorded, not only the total amount contributed by each society, but the separate amounts contributed by each member thereof, when this can be obtained.

All monies received will be deposited in bank to the credit of the "Cochran Monument Fund," and will be held inviolate for that purpose, and subject to the order of the Association.

(Signed.)

W. H. Sanders, M. D.
J. B. Gaston, M. D.
B. J. Baldwin, M. D.
Committee.

The report was unanimously adopted and the committee authorized to proceed with the work in accordance with the recommendations contained therein.

The President then announced the revision of the four following named rolls as the next business in order:

1. The Roll of County Societies.
2. The Roll of the College of Counsellors.
3. The Roll of the Correspondents.
4. The Roll of the Officers.

The revision of the first roll or that of County Medical Societies was then proceeded with.

1. THE REVISION OF THE ROLL OF COUNTY SOCIETIES.

The standing committee on the revision of the rolls, composed of the Secretary, the Senior Censor, and the Treasurer, reported three schedules of county societies as follows:

(*a*). *Societies that have fulfilled all of their Constitutional obligations, that is, are represented at this meeting by delegates, have submitted reports, and paid dues*:

Barbour, Bullock, Cherokee, Choctaw, Clarke, Cleburne, Conecuh, Cullman, Dale, Dallas, DeKalb, Elmore, Escambia, Etowah, Fayette, Hale, Jackson, Jefferson, Lamar, Macon, Madison, Marengo, Marion, Marshall, Mobile, Montgomery, Perry, Randolph, Russell, Shelby, Sumter, Talladega, Tallapoosa, Tuscaloosa, Walker, Washington. Total, 36.

No objection being made to the correctness of this schedule, the President ordered that these thirty-six societies be passed as clear of the books:

(b.) *Societies Partially Delinquent.*

Autauga, delinquent in dues; Baldwin, delinquent in dues and report; Bibb, delinquent in dues; Blount, delinquent in dues; Butler, delinquent in delegates; Calhoun, delinquent in dues; Chilton, delinquent in delegates and report; Clay, delinquent in delegates and report; Coffee, delinquent in report; Coosa, delinquent in delegates; Franklin, delinquent in report; Geneva, delinquent in dues; Greene, delinquent in delegates; Henry, delinquent in dues; Lauderdale, delinquent in report; Limestone, delinquent in delegates and dues; Lowndes, delinquent in delegates and dues; Lawrenec, delinquent in delegates; Monroe, delinquent in dues and report; Pickens, delinquent in delegates and dues; Pike, delinquent in dues; St. Clair, delinquent in delegates; Wilcox, delinquent in delegates; Winston, delinquent in delegates. Total, 24.

No objection being made to the correctness of this schedule, the President ordered that these twenty-three county societies be passed, with the understanding that the Secretary and the Treasurer would endeavor to obtain the missing reports and dues.

(c.) *Societies Totally Delinquent.*

Chambers, Colbert, Covington, Crenshaw, Lee and Morgan. Total, 6.

No objection being made as to the correctness of this schedule, the President ordered that these six county societies be referred to the Board of Censors for investigation.

The revision of the roll of county societies was here ended, and the President ordered that said roll shall stand closed until the next annual meeting of the Association.

(2). THE ROLL OF THE COLLEGE OF COUNSELLORS.

The committee on the revision of the rolls reported the seven schedules of the Counsellors, as follows:

(*d.*) *Counsellors Clear of the Books.*

Grand Seniors.—Baldwin, B. J.; Bragg, S.; Brockway, D. S.; DeWeese, T. P.; Fletcher, R. M.; Franklin, C. H.; Goggans, J. A.; Goode, R.; Goodwin, J. A.; Harlan, J. J.; Hill, L. L.; Huggins, J.; Inge, H. T.; Jay, A.; Jones, C. C.; Kendrick, J. C.; LeGrande, J. C.; Lowry, S. H.; Maréchal, E. L.; Nolen, A. J.; Redden, R. J.; Robertson, T. L.; Searcy, J. T.; Sledge, W. H.; Stovall, A. M.; Thetford, W. F.; Trent, P. G.; Whaley, L.; Wheeler, W. C.; Wilkerson, W. M.; Wilkerson, C. A. Total, 31.

Seniors—Andrews, G;. Bell, W. H.; Blake, W. H.; Bondurant, E. D.; Brown, G. S.; Cameron, M. B.; Coley, A. J.; Cunningham, R. M.; Davis, W. E. B.; Desprez, L. W.; Duggar, R. H.; Frazer, T. H.; Gay, S. G.; Harper, R. F.; Heflin, W.; Hill, G. A.; Hunter, H. M.; Howle, J. A.; Johnston, L. W.; King, G.; McCants, R. M.; McLaughlin, J. M.; Moody, H. A.; Moon, W. H.; Parke, T. D.; Perry, H. G.; Riggs, E. P.; Sutton, R. L.; Swann, J. C.; Williams, J. H.; Watkins, I. L.; Whitfield, B. W.; Wilkerson, J. E. Total, 33.

Juniors.—Bancroft, J.; Brannon, H. L.; Bennett, B. F.; Dixon, J.; Dryer, T. E.; Gaston, J. L.; Guice, C. L.; Harlan, A. L.; Harrison, W. G.; Henderson, S. C.; Henley, A. T.; Hill, R. S.; Jones, J.; Jones, E. S.; Justice, O. S.; McCain, W. J.; McEachern, J. A.; Pearson, B. R.; Pride, W. T.; Robinson, T. F.; Sims, A. G.; Waller, G. P.; Welch, S. W.; Whitfield, J. B.; Wyman, B. L. Total, 25.

No objection being made to the correctness of this schedule, the President ordered that the Counsellors, (eighty-nine in number), whose names had been read, be passed as clear of the books.

(*e.*) *Delinquent Counsellors.*

Watson, W. W. (Counsellor-elect, 1900) Furman.

No objection being made to the correctness of this schedule, the President, under the rules, ordered that the counsellor, whose name had been read as delinquent, should be stricken from the roll of the College of Counsellors, and that of this action he shall be duly notified by the Secretary.

(*f.*) *Miscellaneous Counsellors.*

Counsellor who resigned.—Quinn, W. E. (Senior 1894), Ft. Payne.

No objection being made as to the correctness of this schedule, the President, under the rules, ordered that the resignation of the Counsellor be accepted, and that his name be stricken from the roll of the College of Counsellors.

Counsellor who died.—Moody, F. I. (Junior, 1896), Dothan.

No objection being made to the correctness of this schedule, the President, under the rules, said: We are grieved to hear of the death of our brother counsellor; let us cherish his memory in our hearts; and let his name and record be transferred to the Grand Roll of Honor. *Requiescat in pace.*

(*g.*) *Grand Senior Counsellors of Ten Years Standing.*

Fletcher, R. M.; Jones, C. C.; Robertson, T. L.; Thetford, W. F. Total, 4.

No objection being made to the correctness of this schedule, the President, under the rules, ordered that the counsellors whose names had been read as having served ten consecutive years as Grand Senior Counsellors should be transferred to the Roll of Grand Senior Life Counsellors, and that of this transfer they shall be duly notified by the Secretary.

(*h.*) *Senior Counsellors of Five Years Standing.*

(None.)

(*j.*) *Junior Counsellors of Five Years Standing.*

Harrison, W. G.; Jones, Julius; Robinson, T. F.; Waller, G. P.; Whitfield, J. B. Total, 5.

No objection being made to the correctness of this schedule, the President, under the rules, ordered that the counsellors, five in number, whose names had been read as having served for five consecutive years as Junior Counsellors, be transferred to the Roll of Senior Counsellors, and that of this transfer they shall be duly notified by the Secretary.

(1.) COUNSELLORS-ELECT.

Ard, E. B., Ozark; Green, H., Dothan; Justice, R. L., Geneva; Lawrence, W. J. D., Turkeytown; Maples, W. C., Scottsboro; Robertson, W. H., Clayton; Tam, S. S., Mobile; Thigpen, C. A., Montgomery. Total, 8.

No objection being made to the correctness of this schedule, the President, under the rules, ordered that the counsellors-elect, eight in number, whose names had been read as having signed the counsellors pledge and as having paid their dues, be transferred to the roll of the Junior Counsellors, and that of this transfer they should be duly notified by the Secretary.

The revision of the roll of Counsellors was here ended, and the President ordered that said roll shall stand closed until the next meeting of the Association.

THE ROLL OF CORRESPONDENTS.

Bozeman, Nathan, M. D., New York, 1889.
Garnett, A. S., M. D., Hot Springs, Ark., 1875.
Hoffman, John R., M. D., Athens, Ala., 1890.
Mitchell, William, A., M. D., Eufaula, Ala., 1891.
Moses, Gratz, M. D., St. Louis, Mo., 1874.
Osborne, Thos. C., M. D., Claiborne, Texas, 1885.
Peavy, Julius, F., M. D., Ashville, N. C., 1899.
Rorex, Jas. Polk, M. D., Scottsboro, Ala., 1891.
Fletcher, R. M., Jr., M. D., Ft. Harrison, Mont., 1900.

The revision of the Roll of Correspondents was here ended, and the President ordered that said roll shall stand closed until the next annual meeting of the Association.

(4.) THE ROLL OF THE OFFICERS.

The Committee on the Revision of the Rolls reported that the election of the following named officers would now be in order:

A President for one year.

A Junior Vice-President for two years, (for the Southern division of the State).

Two members of the Board of Censors for five years each, to succeed Dr. C. H. Franklin, of Union Springs, and Dr. W. M. Wilkerson, of Montgomery, whose terms expire with this meeting.

An Orator and an Alternate Orator.

No objection being made to the correctness of this report, the President, under the rules, ordered that elections for the positions named be now proceeded with.

The result of the several ballots taken was the election of the following named officers:

President— Dr. E. L. Maréchal, of Mobile.

Junior Vice-President—Dr. M. B. Cameron, of Sumterville.

Censors for five years—Dr. C. H. Franklin, of Union Springs, and Dr. W. M. Wilkerson, of Montgomery.

Orator—Dr. E. B. Ward, of Selma.

Alternate Orator—Dr. L. C. Morris, of Birmingham.

Dr. Maréchal said that as the Association had honored him with the presidency, he would tender his resignation as a member of the Board of Censors, which he did. The Association accepted the resignation, and the President then announced that an election would be in order to fill the unexpired term of Dr. Maréchal on the Board.

A ballot was taken, the result of which was the election of Dr. H. A. Moody, of Bailey Springs, to succeed Dr. Maréchal on the Board of Censors.

The revision of the Roll of Officers was here ended, and the President ordered that said roll shall stand closed until the next meeting of the Association.

THE ELECTION OF COUNSELLORS.

The Committee on the Rivision of the Rolls reported that there were seven vacancies in the College of Counsellors, whereupon, the President announced that an election to fill these vacancies would now be in order.

Dr. G. A. Hill, Chairman of the Committee on the Nomination of Counsellors, reported that his committee had considered the subject very carefully, and had endeavored to base the nominations upon both merit and geographical distribution.

He then read the following list of nominees:

Dr. J. R. G. Howell, of Dothan, Henry County; Dr. P. T. Fleming, of Enterprise, Coffee county; Dr. H. L. Appleton of Center, Cherokee county; Dr. T. A. Casey, of Albertville, Marshall county; Dr. B. B. Sims, of Talladega; Dr. W. G. Somerville, of Tuscaloosa; Dr. T. Warburton Jones, of Camden.

Motion was made and adopted that the rule as to elections be suspended, and that the Secretary of the Association be authorized to cast the ballot of the Association for Counsellors.

This was done and the President announced as the result of the ballot that the nominees above mentioned had been elected to fill the seven vacancies in the College of Counsellors.

The President announced the installation of officers as the next order of business, but before proceeding with it, gave notice that under the authority granted him by the Association, he would appoint Dr. W. G. Somerville, of Tuskaloosa, and Dr. T. D. Parke, of Birmingham, as members of the Sociological Committee provided for,—the Association having made him the third member.

The President then appointed an installation committee to escort the newly-elected officers to the rostrum to be introduced to the Association.

Dr. E. L. Maréchal, the newly-elected President, was first escorted to the rostrum, and after being warmly received by the retiring President, the latter vacated the chair.

Dr. Maréchal, upon assuming the position of President, made the following remarks:

Gentlemen of the Medical Association of the State of Alabama:

In accepting the official position to which I have been elected by your generous suffrages, I desire to express to you my grateful appreciation of the honor which you have conferred upon me—an honor of which any member of the profession might well be proud. This Association, charged as it is with the supervision of the public health and the enforcement of the law to regulate the practice of medicine in Alabama, has a great and important mission to fulfill. While carefully and intelligently endeavoring to minimize the numerous dangers to which man's physical health is exposed, it seeks to dignify a noble profession by guarding the entrance to it so that those who are incompetent may not be permitted to utilize its insignia for unworthy purposes. Certainly such commendable objects

should enlist the active co-operation and endorsement of all public spirited citizens.

My appreciation of the honor which you have conferred upon me is greatly intensified when I recall the fact that thirty years ago I was an humble student of medicine in the office of Jerome Cochran, whose masterful mind conceived, and whose great genius created our present perfect organization. Standing today and looking backward over the past history of this organization we have ample cause for congratulation. In the few years that have elapsed since our present system was inaugurated, the profession in the State has been regenerated—ignorance and incompetency have been displaced by professional competency, while our health system has been reconstructed upon definite and improved lines. If the success of the past may be taken as an earnest of the future we may well give expression to the motto of the Association—

Nos etiam speravimus meliora.

Again thanking you, gentlemen, and with a sincere desire in all things to conserve the best interests of this Association, and logically of the people of the State, I bespeak, in the performance of my duties as your executive officer, your generous support and active co-operation.

President Maréchal then announced as the next order of business the installation of the Junior Vice-President.

Dr. M. B. Cameron was escorted to the rostrum and after being cordially received by the President, was introduced to the Association.

Dr. Cameron, in a few graceful remarks, thanked the Association for the honor conferred, and promised his utmost fidelity in the discharge of his official duties.

The installation of the newly-elected members of the Board of Censors was declared to be next in order.

Upon investigation it was ascertained that Dr. C. H. Franklin had left, therefore, he being absent, the President declared that he would succeed himself for another term of five years upon the Board of Censors.

It was also found that Dr. W. M. Wilkerson was not in the hall, to be personally installed, the President therefore, announced that he would succeed himself on the Board of Censors for a term of five years.

Dr. H. A. Moody, elected to succeed Dr. Maréchal, was escorted to the rostrum and warmly welcomed by the President as a member of the

Board of Censors, whereupon, Dr. Moody accepted the honor and responsibility of the position in a few earnest and appropriate remarks.

The newly-elected orator, Dr. E. B. Ward and the newly-elected alternate orator, Dr. L. C. Morris, were next escorted to the rostrum and introduced by the President to the Association, both of whom, in brief but fitting words, thanked the Association for the honor conferred.

The President then declared the selection of the next place of meeting in order.

Dr. E. A. Jones, of Birmingham, extended a cordial invitation tc the Association to hold its next meeting in that city.

Dr. W. G. Harrison, of Talladega, said that not until recently had the hotel facilities of his town been adequate for accommodating the members of the Association, but he thought they were now, and said that he was authorized by his county medical society to extend to the Association a cordial invitation to hold its next meeting in Talladega.

Upon a rising vote the invitation to hold the next meeting in Birmingham was accepted.

Dr. Cameron, of Sumterville, moved that the cordial thanks of the Association be returned to the Dallas County Medical Society, to the Young Men's Christian Association, and to the press and people of Selma for courtesies and attentions rendered and also to the various railroads of the State for transportation to the meeting at reduced rates.

The motion was, by a rising vote, unanimously adopted.

The meeting was then adjourned *sine die.*

REGISTRATION LIST.

During the meeting the following named counsellors, delegates, and members appeared and registered:

GRAND SENIOR LIFE COUNSELLORS.

Jackson, Robert Dandridge, Brookwood.
McKittrick, Adam Alexander, Evergreen.
Sanders, William Henry, Mobile.
Starr, Lucius Ernest, Camden.

GRAND SENIOR COUNSELLORS.

Coley, Andrew Jackson, Alexander City.
DeWeese, Thomas Peters, Gamble Mines.
Franklin, Charles Higgs, Union Springs.
Goggans, James Adrian, Alexander City.
Goodwin, Joseph Anderson, Jasper.
Harlan, Joseph Jefferson, Hackneyville.
Hill, Luther Leonidas, Montgomery.
Huggins, Jacob, Newberne.
Jay, Andrew, Evergreen.
Kendrick, Joel Cloud, Greenville.
LeGrand, John Clarke, Birmingham.
Maréchal, Edwin Leslie, Mobile.
Nolen, Abner Jackson, New Site.
Robertson, Thaddeus Lindley, Birmingham.
Stovall, Andrew McAdams, Jasper.
Thetford, William Fletcher, Talladega.
Whaley, Lewis, Birmingham.
Wilkerson, Charles A., Marion.

SENIOR COUNSELLORS.

Andrews, Glenn, Montgomery.
Bell, Walter Howard, Hargrove.
Brown, George Summers, Birmingham.
Cameron, Matthew Bunyan, Sumterville.
Cunningham, Russell McWhorter, Ensley.
Davis, William Elias Brownlee, Birmingham.
Desprez, Louis Willoughby, Florence.
Duggar, Reuben Henry, Gallion.
Gay, Samuel Gilbert, Selma.

Hill, George Armstrong, Wynette.
Johnston, Louis William, Tuskegee.
King, Goldsby, Selma.
McCants, Robert Beall, Demopolis.
Moody, Henry Altamont, Bailey Springs.
Moon, William Henry, Goodwater.
Parke, Thomas Duke, Birmingham.
Perry, Henry Gaither, Greensboro.
Sutton, Robert Lee, Orrville.
Waller, George Platt, Montgomery.
Whitfield, Bryant Watkins, Demopolis.

JUNIOR COUNSELLORS.

Ard, Erastus Byron, Ozark.
Dryer, Thomas Edmund, Huntsville.
Guice, Charles Lee, Gadsden.
Harrison, William Groce, Talladega.
Hill, Robert Sommerville, Montgomery.
Justice, Robert Lee, Geneva.
McCain, William Jasper, Livingston.
McEachern, John Adolphus, Brundidge.
Pride, William Thomas, Madison.
Robertson, William Henry, Clayton.
Robinson, Thomas Franklin, Bessemer.
Sims, Albert Gallatin, Renfroe.
Tam, Silas Springer, Mobile.
Welch, Samuel Wallace, Alpine.
Whitfield, James Bryant, Demopolis.

DELEGATES PRESENT.

Autauga—M. D. Smith, Prattville.
Baldwin—J. H. Hastie, Stockton.
Barbour—Judson Davie, Cowikee.
Bibb—M. C. Schoolar, Centerville.
Blount—D. S. Moore, Clarence.
Bullock—T. J. Dean, Union Springs; G. M. Guthrie, Inverness.
Butler—None.
Calhoun—E. C. Anderson, Anniston.
Chambers—None.
Cherokee—H. L. Appleton, Center.
Chilton—None.

Choctaw—G. L. Granberry, Pushmataha.
Clarke—L. O. Hicks, Jackson.
Clay—None.
Cleburne—S. L. Williams, Hightower.
Coffee—P. T .Fleming, Enterprise; H. R. Bradley, Elba.
Colbert—None.
Conecuh—W. F. Betts, Evergreen.
Covington—None.
Crenshaw—None.
Cullman—John Yielding, Walker.
Dale—F. R. Yarborough, Ozark.
Dallas—B. B. Rogan, Selma; J. H. Keyser, Richmond.
DeKalb—E. P. Nicholson, Valley Head.
Elmore—H. E. Scott, Wetumpka.
Escambia—R. A. Smith, Hammac; W. L. Abernathy, Flomaton.
Etowah—E. T. Camp, Gadsden.
Fayette—V. Savage, Pilgrim.
Franklin—E. M. Harris, Russellville.
Greene—None.
Geneva—M. F. Fleming, Geneva.
Hale—M. C. Otts, Greensboro.
Henry—W. M. Ryals, Cowarts; J. R. G. Howell, Dothan.
Jackson—T. E. Callan, Scottsboro.
Jefferson—Edgar A. Jones, Birmingham; L. C. Morris, Birmingham.
Lamar—D. D. Hollis, Sulligent.
Lauderdale—A. Zimmerman, Killen.
Lawrence—None.
Lee—None.
Limestone—None.
Lowndes—None.
Macon—J. B. Letcher, Shorters.
Madison—J. T. Haney, Madison; E. O. Williamson, Gurley.
Marengo—C. B. Thomas, Thomaston; J. S. Skinner, Shiloh.
Marion—C. L. Woods, Hamilton.
Marshall—T. A. Casey, Albertville.
Mobile—J. T. Inge, Mobile; G. H. Fonde, Mobile.
Monroe—W. J. Mason, Activity.
Montgomery—M. B. Kirkpatrick, Montgomery; S. A. Billing, Montgomery.
Morgan—None.
Perry—Edward Swan, Sprotts.
Pickens—None.
Pike—J. W. Robertson, Brundidge.

Randolph—J. W. Hooper, Roanoke.
Russell—J. P. Norris, Uhland.
Shelby—E. C. Parker, Shelby; E. G. Givhan, Montevallo.
St. Clair—None.
Sumter—J. P. Scales, Coatopa; J. H. Reed, Epps.
Talladega—B. B. Sims, Talladega; F. H. Craddock, Sylacauga.
Tallapoosa—E. W. Hart, Walnut Hill.
Tuscaloosa—W. M. Faulk, Tuscaloosa; M. L. Mallory, Tuscaloosa.
Walker—J. M. Miller, Cordova; J. N. Odom, America.
Wilcox—None
Winston—None.

MEMBERS.

NAME.	RESIDENCE	COUNTY.
Barron, W. H.	Scotts Station	Perry.
Bankston, R. C.	Birmingham,	Jefferson.
Bonner, T. H.	Hickory Flat,	Chambers.
Baker, J. N.	Montgomery,	Montgomery.
Bussey, J. F.	Jones Mill,	Monroe.
Byrd, B. L.	Daleville,	Dale.
Burroughs, W. M.	Pine Hill,	Wilcox.
Caine, V. H.	Safford,	Dallas.
Copeland, B. G.	Birmingham,	Jefferson.
Coleman, R. M.	Eleanor,	Dallas.
Dahlberg, C. I.	Suggsville,	Clarke.
Donald, E. G.	Monterey,	Butler.
Driver, E. N.	Newberne,	Hale.
Duggar, L. L.	Fairford,	Washington.
DuBose, W. S.	Columbiana,	Shelby.
Edwards, D. B.	Polk,	Dallas.
Edwards, J. H.	Wylam,	Jefferson.
Fuller, E. L.	Summerfield,	Dallas.
Gordon, S. A.	Collirene,	Lowndes.
Glass, E. T.	Birmingham,	Jefferson.
Gee, E. T.	Burnsville,	Dallas.
Hixson, F. P.	Perote,	Bullock.
Hudson, W. H.	LaFayette,	Chambers.
Harper, W. W.	Selma,	Dallas.
Hestle, W. M.	Buena Vista,	Monroe.
Hawthorne, S. M.	Pine Apple,	Wilcox.
Jones, T. W.	Camden,	"
Joiner, W. T.	Russell,	Mobile.
Jenkins, L. A.	Cardiff,	Jefferson.
Jeffries, J. G.	Whatley,	Clarke.
Kimbrough, W. L.	Linden,	Marengo.
Kirkpatrick, S.	Selma,	Dallas.

NAME.	RESIDENCE	COUNTY.
Kennedy, J. O.	Kennedy,	Lamar.
Kimbrough, F. F. Jr.	Arlington,	Wilcox.
Lockhart, W. C.	Dayton,	Marengo.
Lockhart, T. E.	Selma,	Dallas.
Leonard, M. W.	Cedarville,	Hale.
Lightfoot, P. M.	Cross Keys,	Macon.
LeBarron,	Yellow Pine,	Washington.
Lewis, B. J.	Fresco,	Coffee.
McWhorter, H. P.	Collinsville,	DeKalb.
Montgomery, A. H.	Montgomery,	Montgomery.
Mobley, R. V.	Birmingham,	Jefferson.
Moore, J. T.	Orrville,	Dallas.
May, J. T.	Notasulga,	Macon.
Morris, L. C.	Birmingham,	Jefferson.
Matthews, E. A.	Clanton,	Chilton.
Mayer,	Lower Peach Tree,	Wilcox.
Mason, W. J.	Activity,	Monroe.
Mosely, D. C.	Faunsdale,	Marengo.
Martin, T. M.	Plantersville,	Dallas.
Purifoy, J. H.	Furman,	Wilcox.
Peters, U. J. W.	Birmingham,	Jefferson.
Persons, H. S.	Montgomery,	Montgomery.
Pegues, C. I.	Safford,	Dallas.
Rogers, Mack	Birmingham,	Jefferson.
Rea. B. F.	Coosada,	Elmore.
Robinson, L. D.	Montgomery,	Montgomery.
Stubbs, G. H.	Birmingham,	Jefferson.
Sadler, W. F.	Montgomery,	Montgomery.
Sims, C. T.	Gadsden,	Etowah.
Somerville, W. G.	Tuscaloosa,	Tuscaloosa.
Smith, S. D.	Demopolis,	Marengo.
Shivers, O. L.	Marion,	Perry.
Sellers, I. J.	Birmingham,	Jefferson.
Sellers, Wm. Thos.	Browns,	Dallas.
Whitfield, S. T.	Uniontown,	Perry.
Wilkinson, D. L.	Montevallo,	Shelby.
Wilson, I. G.	Demopolis,	Marengo.
Ward, E. B.	Selma,	Dallas.

SUMMARY

Grand Senior Life Counsellors	4
Grand Senior Counsellors	18
Senior Counsellors	20
Junior Counsellors	15
Delegates	63
Members	70
Total registered attendance	190

THE ANNUAL REGISTER

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA.

THE BOOK OF THE ROLLS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

INTRODUCTION.—OF LEGAL IMPORTANCE TO EVERY PHYSICIAN IN THE STATE OF ALABAMA.

Owing to the legal relations which *each* member of *each* county medical society bears to the STATE OF ALABAMA (which relations are set forth in the Code of the State), it is *absolutely necessary* that the presidents, secretaries, treasurers, members of the boards of censors, and each individual member of the societies, should see that the roster of their respective societies is sent to the Secretary of the State Association in accordance with the specific instructions, printed on the blanks sent to the secretary of each society.

It is, therefore, urged upon the officers of each county medical society to see that, in future, the reports be properly filled out in accordance with the printed instructions on the blank. It is advised that the secretaries compare their reports for the current year with the report, as printed in the volume of Transactions for the previous year and that *all* the changes be carefully made.

A strict compliance with the instructions printed on the blank for report will avoid all difficulties.

Explanation.—The letters "mc" stand for "medical college;" the letters "cb" for "county board;" when the certificate is issued by the examining board of the county in the register of which it occurs. the name of the county is omitted; when the certificate was issued by the examining board of some other county, the name of such county succeeds the abbreviation. The first name of every board of censors is that of the president of the board. The letters "ng" stand for "non-graduate." "Diploma recorded" applies to a small number of doctors, who are exempt from criminal prosecution, but who are illegal doctors.

THE ROLL OF THE COUNTY MEDICAL SOCIETIES.

REVISION OF 1901.

AUTAUGA COUNTY MEDICAL SOCIETY—Selma, 1874.

OFFICERS.

President, C. Rice; Vice-President, M. D. Smith; Secretary, R. M. Davis; Treasurer, R. M. Davis; Health Officer, J. W. Hagler. Censors—R. M. Davis, C. Rice, M. D. Smith, J. W. Hagler, J. E. Wilkinson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Davis, Robert Merritt, mc univ Tulane 95, cb 95, Prattville.
Davis, Elbert Horton, mc Chattanooga 1900, cb 1900, Huckabee.
Hagler, John Wiley, mc Alabama 94, cb Tuscaloosa 94, Prattville.
Marlar, Alonza, Jr., mc Alabama 94, cb Tuscaloosa 94, Billingsley.
Rice, Clarence, mc Alabama 95, cb 95, Prattville.
Smith, Malcolm Daniel, mc univ New York 91, cb Coosa 91, Prattville.
Snow, J. Louis, mc Alabama —, cb Lowndes 91, Autaugaville.
Thompson, Hallett Webster, mc univ Tulane 100, cb 1900, Billingsley.
Wilkinson, John Edward, mc univ Tulane, 68, cb 80, Prattville.
Total, 9.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Davis, John William, mc Atlanta 59, cb 80, Prattville.
Gibson, William Beatty, mc Bellevue 89, State Board 92, Autaugaville.
Golson, Wyatt Washington, mc South Carolina 54, cb 84, Independence.
Golson, Robert Marion, mc univ Tennessee 94, cb 94, Independence.
Total, 4.

[illegible] into the county—J Louis Snow, from Farmersville, Lowndes to Autaugaville.

out of the county—John Edward Wilkinson, Jr., from Pratt-Brierfield, Bibb county.

nations—Hallett W. Thompson, Tulane 1900, certificate
John Edward Wilkinson, univ of the South 1901, certificate
Elbert Horton Downs, Chattanooga mc 1900, certificate

—Chas. Alva Edwards, Prattville.

BALDWIN COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

President, P. M. Hodgson; Vice-President, C. L. Mershon; Secretary, V. McR. Schowalter; Treasurer, V. McR. Schowalter; Health Officer, V. McR. Schowalter. Censors—P. M. Hodgson, C. L. Mershon, John H. Hastie.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Hall, R. A., mc univ Tennessee 94, cb 1901, Fairhope.
Hall, Joseph, mc Alabama 1901, cb 1901, Daphne.
Hastie, John Hamilton, mc univ Tennessee 99, cb 99, Stockton.
Hodgson, Phillip M., mc Atlanta 89, cb Monroe 89, Stockton.
Howe, Charles Lester, mc Kentucky S. of M. 93, cb 93, Magnolia.
Lambert, George Lee, mc Alabama 95, cb Choctaw 95, Bay Minette.
Lovelady, William Marshall mc —— —, cb 86, Bon Secour.
McLeod, J. C., mc Birmingham 1900, cb Coosa 1900, Dolive.
Mershon, Clarence L, mc Iowa 98, cb 99, Fairhope.
Schowalter, Volney McR, mc Alabama 90. cb 90, Point Clear.
Trammell, Joseph D., mc univ Nashville 57, cb 86, Bay Minette.
Total, 11.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Coghlan, Malachy, mc Alabama 92, cb 92, Tensaw.
Davis, T. A., mc —— —, cb —, Daphne.
Total, 2.

Moved into the county—R. A. Hail, from Louisiana to Fairhope.
Moved out of the county—W. G. Aikin, from Stockton to Florida.

BARBOUR COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, W. P. Copeland; Vice-President, J. J. Winn; Secretary, H. L. Brannon; Treasurer, W. G. Lewis; Health Officer, W. H. Robertson. Censors—H. L. Brannon, B. F. Bennett, W. P. Copeland, W. H. Robertson, J. J. Winn.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Battle, Junius Kincade, mc univ Louisiana 83, cb 83, Eufaula.
Bennett, Benjamin Franklin, mc Alabama 93, cb 93, Louisville.
Brannon, Henry Lee, mc univ Vanderbilt 85, cb 85, Eufaula.
Britt, Walter Stratton mc Bellevue 98, cb Bullock 98, Eufaula.
Copeland, William Preston, mc Bellevue 70, cb 79, Eufaula.

Davie, Judson, mc Georgia 72, cb 81, Cowikee.
Hagood, John Waller, mc Alabama 98, cb Lowndes 98, Alston.
Harrison, William Henry, mc Chattanooga 93, cb 93, Baker Hill.
Houston, James LaFayette mc univ Vanderbilt 98, cb 98, Harris.
Lewis, William Gabriel, mc Atlanta 84, cb Henry 84, Eufaula.
Mangum, William Weightman, mc Atlanta 83, cb Butler 93, Eufaula.
McDowell, William P., mc Alabama 1900, cb 1900, Clayton.
Mitchell, William Augustus, mc univ Louisiana 68, cb 86, Eufaula.
Patterson, Thomas, mc Atlanta 69, cb 82, Louisville.
Robertson, William Henry, mc Alabama 87, cb 87, Clayton.
Smart, William Alpheus, mc Louisville 83, cb Coffee 83, Clayton.
Wallace, George Oscar, mc Alabama 91, cb 91, Clio.
White, Robert Lee, mc Alabama 98, State Board 98, Mt. Andrew.
Winn, Locke Minor, mc univ Tulane 1900, State Board 1900, Clayton.
Winn, James Julius, mc Atlanta 68, cb 81, Clayton.
Total, 20.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Faulk, Daniel Winston, cb 84, Clio.
Gilbert, Andrew Jackson, mc Atlanta 89, cb Russell, 89, Eufaula.
Herron, Darrell Jefferson, mc Atlanta 83, cb 83, Louisville.
McInnis, James A., mc Memphis Hospital 96, cb 99, Clio.
Mitchell, Thomas Snead, mc Atlanta 66, cb Lee 83, Eufaula.
Patterson, Robert B, mc Atlanta 99, cb 99, Louisville.
Wilson, Cato Hadras (col.) mc Meharry 99, cb 99, Eufaula.
Total, 7.

Retired—G. W. Huey, Baker Hill.

Moved into the county—W. H. Harrison, from Talladega county to Baker Hill; W. W. Mangum, from Georgiana, Butler county, to Eufaula.

Moved out of the county—J. C. Borders, from Louisville to Louisiana; J. H. Lingo, from Texasville to Dundee, Geneva county; J. H. Pruett, from Harris to Midway, Bullock county.

Examinations—W. P .McDowell, mc Alabama 1900, certificate granted; C. H. McDonald, mc Alabama 1900, certificate refused.

Deaths—Albert Goodwin, Eufaula; C. H. McDonald, Clio.

BIBB COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

President—W. H. Bell; Vice-President, J. F. Curtis; Secretary, P. I. Hopkins; Treasurer, T. E. Schoolar; Health Officer, J. S. Moore. Censors—W. H. Bell, A. E. Meadow, L. E. Peacock, J. F. Curtis, T. E. Schoolar.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bell, Walter Howard, mc Atlanta 88, cb Calhoun 88, Hargrove.
Campbell, Charles Monroe, mc univ Tennessee 94, cb 94, Scottsville.
Curtis, Joseph Franklin, mc Alabama 93, cb Shelby 93, Blocton.
Cannon, Daniel Pugh, mc Vanderbilt —, cb 95, Corlina.
Hopkins, Perry Isaaih, mc univ Vanderbilt 99, cb 99, Centreville.
Jones, Rufus C., mc Montezuma 98, cb Shelby 98, Blocton.
Krout, Chas. Franklin, mc Alabama 95, cb 95, Pondville.
Meadow, Albert Eli, mc Pulte 83, cb Jefferson 83, Blocton.
Miller, J. T., mc univ Vanderbilt 86, cb Pickens 86, Lopez.
Moseley, David Orian, mc Washington 72, cb Perry 78, Centreville.
Moore, James Samuel, mc Phys. and Surg. Baltimore 93, cb Jefferson 93, Six Mile.
Nicholson, Wm. John, mc Vanderbilt 84, cb 86, Six Mile.
Peacock, Lovick Edward, mc Alabama 92, cb Marengo 92, Blocton.
Ray, Jacob Usry, Jr., mc univ Tennessee 93, cb 93, Blocton.
Schoolar, Milton Carson, mc Alabama 87, cb 87, Centreville.
Schoolar, Thornly Edward, mc univ Vanderbilt 92, cb 92, Centreville.
Thomas, M. C., mc Tulane 99, cb 99, Lopez.
Trigg, Allen Warren, mc Alabama 81, cb Tuscaloosa 81, Blocton.
Woolley, Chas. Lewis, Old Law, 69, cb Perry 79, Randolph.
Total, 19.

HONORARY MEMBER.

James Wilford Williams, mc Georgia 39, cb 79, Centreville.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adams, J. Bird, mc Alabama 97, cb 97, Lawley.
Buntin, William Battle, mc Memphis Hospital 1900, cb 1900, Scottsville.
Owens, John Harrison, mc Memphis Hospital 99, cb, 1900, Scottsville.
Steward, Charles Franklin, mc Alabama 91, cb 91, Jericho.
Total, 4.

Moved into the county—John H. Owens, from Havana, Hale county, to Scottsville; William Battle Buntin, from Meridian, Miss., to Scottsville; Perry Isaaih Hopkins, from Bessemer to Centerville; D. P. Cannon, from Coaling, Tuscaloosa county, to Coalina; J. E. Wilkinson, Jr., from Prattville to Brierfield.

Examinations—Albert M. Woolley, mc Alabama 1900, certificate granted; J. H. Owen, Memphis Hospital 99, certificate granted; Chas. P. Martin, mc univ Vanderbilt 1900, certificate granted; Wm. Battle Buntin, mc Memphis Hospital, 1900, certificate granted.

Deaths—J. U. Ray, Sr., Woodstock; John Wesley Jones, Randolph.

BLOUNT COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

President—W. B. Allgood; Vice-President, D. S. Moore; Secretary, H. E. Mitchell; Treasurer, H. E. Mitchell; Health Officer, F. N. Hudson. Censors—F. N. Hudson, W. T. Bains, H. E. Mitchell, E. S. W. Cox, W. B. Allgood.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allgood, William Benton, mc Atlanta Southern 78, cb 78, Chepultepec.
Bains, William Talley, mc univ Vanderbilt 88, cb 88, Cleveland.
Cox, Edward S. W., mc univ Tennessee 93, cb 93, Bangor.
Gillespie, Felix Augustus, mc Alabama 89, cb 89, Hanceville.
Gillespie, William Thomas, mc Chattanooga 98, cb 98, McLarty.
Hudson, Frank Norton, mc univ Vanderbilt 74, cb 76, Blountsville.
Mitchell, Henry Eugene, mc univ Vanderbilt 93, cb 93, Oneonta.
Moore, David Sanders, mc Atlanta 80, cb 80, Blountsville.

Total, 8.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Alridge, Patrick George, mc Atlanta Southern 76, cb 79, Brooksville.
Armstrong, Jesse Isom, mc Chattanooga 93, cb 93, Blount Springs.
Brown, Jesse, mc Memphis Hospital 1900, cb 1900, Clarence.
Berrier, J. H., ————, Oneonta.
Cole, William M., mc Atlanta 86, cb 86, Blountsville.
Davidson, Alvin Steele, ng, cb 71, Selfville.
Donehoo, Floyd G., mc Atlanta Southern 81, cb —, Oneonta.
Gibbs, U. M., mc univ Nashville 98, cb 1900, Hanceville.
Haden, Andrew Wade, mc univ Vandervilt 82, cb 82, Summit.
Leach, James Edward, mc univ Nashville 1900, cb 1900, Liberty.
Martin, William H., mc Atlanta 88, cb Cullman 88, Hanceville.
McPherson, George Willis, mc univ Tennessee 87, cb Cullman 87, Country.
Self, George Washington, mc univ Tennessee 89, cb 89, Selfville.

Total, 13.

Moved into county—Cole, William M., from Texas to Blountsville; William H. Martin, from Cullman county to Hanceville.

Moved out of county—P. M. Baker, from Snead to Boaz, Marshall county; J. G. Chambers, from Liberty to Woodlawn, Jefferson county; J. T. Harwell, from Compton to Dolomite, Jefferson county; H. C. Burnum, from Swansea to Chalkville, Jefferson county; W. H. Haden, from Summit to Cullman county; W. T. Hinds, from Summit, to Arab, Marshall county; M. S. Ingram, from Hanceville to Brighton, Jefferson county; H. B. Martin, from Arkadelphia to Avon-

dale, Jefferson county; J. H. Martin, from Oneonta to Springville, St. Clair county; H. B. Martin, from Arkadelphia to Cordova, Walker county; W. M. Finley, from Blountsville to Birmingham; J. L. Rains, from Liberty to Texas; W. L. Roseman, from Arkadelphia to Ensley, Jefferson county; J. C. Walker, from Clarence to Marylee, Walker county; Henry S. Ward, from Oneonta to Birmingham; P. Whaley, from Hanceville to Marion county.

Examinations—Jesse Brown, Memphis Hospital mc 1901, certificate granted; U. M. Gibbs, univ Nashville, 1898, certificate granted; W. T. Gillespie, Chattanooga, mc 1898, certificate granted; J. E. Leach, univ Nashville, 1900, certificate granted; J. C. Walker, univ Nashville 1900, certificate granted.

Death—Clapp, William King, Gum Springs.

BULLOCK COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, Seale Harris; Vice-President, F. P. Hixon; Secretary, C. M. Franklin; Treasurer, S. C. Cowan; Health Officer, Seale Harris. Censors—C. H. Franklin, Seale Harris, R. H. Hayes, S. C. Cowan, C. M. Franklin.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baldwin, James Crews, mc Richmond 94, cb Macon 94, James.
Boswell, Frank B., mc Alabama 1900, cb Pike 1900, Post Oak.
Bowman, James L., mc univ of Virginia —, cb 1901, Union Springs.
Butt, Richard Lemuel, mc univ New York 46, cb 80, Midway.
Cowan, Samuel Calvin, mc Alabama 89, cb 89, Union Springs.
Darnell, Benjamin Franklin, mc Atlanta 55, cb 83, Fitzpatrick.
Dean, T. Joseph, mc Louisville 94, Chambers 94, Union Springs.
Eidson, James Thomas, mc Alabama 94, cb 94, Fitzpatrick.
Franklin, Charles Higgs, mc Louisiana 66, cb 80, Union Springs.
Franklin, Charles Moore, mc phys and surg New York 98, cb 98, Union Springs.
Guthrie, George Martin, mc Alabama 1900, cb 1900, Inverness.
Harris, Seale, mc univ of Virginia 94, cb 94, Union Springs.
Hayes, Robert Hughes, mc St. Louis 79, cb 80, Union Springs.
Hixon, Frank Petty, mc univ Vanderbilt 98, cb 98, Perote.
Hunter, Henry Mitchell, mc phys and surg Baltimore 86, cb 87, Union Springs.
Martin, Henry Marcellus, mc univ of Virginia, State Board 1900, Union Springs.
Pruett, James Henry, mc univ New York 58, cb 79, Midway.
Reynolds, William Henderson, mc Alabama 85, cb 85, Union Springs.

Sessions, Llewellen, mc Georgia 48, cb 87, Union Springs.
Walker, William Austin, mc Jefferson 54, cb 80, Perote.
Total, 20.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allen, Alexander George William (col), mc Meharry 99, cb Russell 99, Union Springs.
Williams, Anderson Milton (col), mc Leonard 1900, cb 1900, Union Springs.
Total, 2.

Moved into the county—Henry Marcellus Martin, from Atlanta to Union Springs; F. B. Boswell, from Pike county to Post Oak; J. L. Bowman, from Virginia to Union Springs.

Moved out of the county—James William Beasley, from Mt. Hilliard to Pike county.

Examinations—George M. Guthrie, mc Alabama 1900, certificate granted; A. M. Williams (col), mc Leonard 1900, certificate granted; J. L. Bowman, mc univ of Virginia, certificate granted.

Deaths—Augustus Clayton Crymes, Midway; William Bartlett Thomason, Aberfoil.

BUTLER COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

President, R. E. Smith; Vice-President, J. C. Watson; Secretary T. D. Stallings; Treasurer, T. D. Stallings; Health Officer, J. C. Kendrick. Censors—J. C. Kendrick, E. G. Donald, T. D. Stallings, J. A. Kendrick, J. C. Watson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allman, James Edward, mc Savannah 69, cb 79, Georgiana.
Broughton, John Thomas, mc univ Pennsylvania 52, cb 79, Greenville.
Donald, Erskine Grier, mc Alabama 93, cb 93, Monterey.
Garrett, James Jefferson mc Georgia Reform 82, cb 82, Forest Home.
Kendrick, Joel Cloud, mc univ Nashville 52, cb 78, Greenville.
Kendrick, John Aaron, mc univ Tulane 94, cb 94, Greenville.
McCaine, James Jordan, mc univ Tulane, 82, cb 82, Chapman.
Morris, William Eli, mc Alabama 97, cb Conecuh 97, Georgiana.
Perdue, James Lewis, mc Alabama 75, cb 79, Greenville.
Smith, Robert Edward, mc Alabama 82, cb 88, Greenville.
Stallings, Thomas Daniel, mc Alabama 89, cb Lowndes 89, Greenville.
Thaggard, Robert Albert, mc univ Tulane 97, cb 97, Greenville.
Wall, Richard Albert, mc univ Tulane, 92, cb 94, Forest Home.
Watson, James Crawford, mc Alabama 98, cb 98, Georgiana.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Tillery, L. S. mc, cb 84, Ft Deposit, Lowndes county.
Seimmes, W. C., mc —, cb 78, Manningham.
Total, 2.

Moved out of the county—Herbert F. Saunders, from Greenville to U. S. army; Henry Green, from Bolling to Dothan, Henry county; W. W. Mangum, from Georgiana to Eufaula, Barbour county; William Abner Brown, from Garland to ————.

Death—William Paners Grissett, of consumption, Garland.

CALHOUN COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

President, E. C. Anderson; Vive-President, W. H. Kinnebrew; Secretary A. A. Greene; Treasurer, E. C. Anderson; Health Officer, J. M. Whiteside. Censors—W. A. Smith, J. M. Whiteside, W. B. Arberry, J. F. Walker, W. H. Kinnebrew.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Anderson, Edmond Clack, mc Kentucky s of m 77, cb 85, Anniston.
Arberry, William Buchanan, mc univ Vanderbilt 82, cb Macon 82, Jacksonville.
Bowcock, Robert Lee, mc univ Virginia 86, cb 88, Anniston.
Brock, Jefferson C., mc univ Vanderbilt 84, cb Randolph 84, Anniston.
Brouthers, Phillip Houston, ng (old law) 41, cb 86, Zula.
Davis, John Francis Marion, mc Atlanta 60, cb 80, Choccolocco.
Douthit, Andrew Jackson, ng (old law), cb 81, Alexandria.
Gordon, Frederick Elliott, mc Alabama 82, cb Marengo 82, Anniston.
Greene, Allen Augustus, mc univ Vanderbilt 81, cb Chilton 91, Anniston.
Hamilton, C. J., mc ——, cb ——
Hughes, Robert Lee, mc Atlanta 92, cb 92, Choccolocco.
Kelly, John Baker, mc Jefferson 59, cb Coosa 84, Anniston.
Kinnebrew, William Henry, mc univ New York 78, cb 83, Piedmont.
Ligon, Arthur Wellington, mc univ Vanderbilt 83, cb Cleburne, 84, Oxford.
Meharg, Shelton Theodore, mc Memphis Hospital 1900, cb 1900, Weavers.
Moon, Edward Kimbrough, mc univ Grant 92, cb Marshall 92, Anniston.
Smith, William Armstead, mc Alabama 81, cb Monroe 81, Anniston.
Steele, Abner Newton, mc Alabama 90, cb Pickens 90, Anniston.
Taylor, James Ratchford, mc Atlanta 80, cb Clay 96, Anniston.

Vann, Paul D., mc Alabama 96, cb DeKalb 96, Anniston.
Walker, James Fleming, mc univ Louisville 92, cb 92, Anniston.
Whiteside, John McIntyre, mc univ Vanderbilt 84, cb 84, Oxford.
Total, 22.

HONORARY MEMBERS.

Robertson, Thaddeus Lindley, mc Jefferson 61, cb 81, Birmingham.
Warren, William James, mc Atlanta 89, cb Tallapoosa 89, Anniston.
Wikle, Jessie Lane, (Druggist), mc Georgia 71, cb 81, Anniston.
Williams, Genaboth Cape, ng, 81, White Plains.
Total, 4.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bullard, Francis Aurelius, ng, cb 81, Oxford.
Crook, John E., mc univ Vanderbilt —, cb 81, Jacksonville.
Edmondson, A. J., mc Atlanta, Anniston.
Hudson, T. H., mc Alabama, cb —, DeArmanville.
Huger, Richard Proctor, mc South Carolina 71, cb 81, Anniston.
Hughes, John Leander, mc Georgia 51, cb 83, Piedmont.
Koch, J. J., ng, illegal, Bruner.
Matthews, George Andrew, mc univ Michigan 66, cb 80, Anniston.
McCreary, Samuel Josephus, mc Atlanta 80, cb Cherokee 81, Anniston.
Meharg, William Gray, mc Memphis Hospital 99, cb 99, ——
Pruitt Eber Austin, mc Alabama 1900, cb 1900, ——
Thomas, Charles E. (col), mc Long Island Hospital 90, cb 90, Anniston.
Teague, Francis Bowden, mc univ Tennessee 80, cb Etowah 80, Piedmont.
Whiteside, John U., mc Alabama 96, cb 96, White Plains.
Williams, Benjamin Dudley, mc univ Louisville —, cb 87, Oxford.
Williamson, Thomas ng, cb 84, Peeks Hill.
Total, 16.

Moved into the county—C. J. Hamilton, C. C. McClintock, A. E. Pruett, W. G. Meharg, J. J. Koch.

Moved out of the county—T. W. Ayres, from Anniston to China as medical officer U. S. A.; W. M. Turner, from Anniston to parts unknown; A. W. Bell, from Weavers to Vincents, Shelby county; G. L. Chapman, from Alexandria to Georgia; A. J. Sanders, from Ohatchee to Jefferson county.

Examinations—Amzi Jones, Vanderbilt 1900, certificate granted; Shelton Theodore Meharg, Memphis H. M. C., 1900, certificate granted; Eber Austin Pruett, mc Alabama, 1900, certificate granted.

*CHAMBERS COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

President, Z. T. Grady; Vice-President, W. J. Love; Secretary, W. D. Gaines; Treasurer, W. D. Gaines; Health Officer, W. M. Gay. Censors—W. D. Gaines, W. H. Hudson, W. J. Love, T. H. Bonner, T. H. Haralson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bonner, Thomas Hamilton, mc Southern 84, cb Randolph 84, Hickory Flat.
Finley, Emmett M., mc Atlanta 80, cb 96, Fredonia.
Gaines, William D., mc Alabama 92, cb 92, LaFayette.
Gay, William M., mc Southern —, cb Randolph —, Penton.
Grady, Zachary Taylor, mc Atlanta 80, cb 81, LaFayette.
Haralson, Thomas H., mc Memphis Hospital 99, cb 99, Cusseta.
Hilt, John Leonard, mc Southern 89, Jefferson 89, Five Points.
Hudson, William Henry, mc Atlanta 86, cb 86, LaFayette.
Ison, Josiah Allen, mc Southern 87, cb Tallapoosa 87, Wise.
Liles, John P. mc Birmingham 98, cb 98, Mill Town.
Love, William Joseph, mc Atlanta 82, cb Lee 85, LaFayette.
Newman, Samuel Harris, mc Memphis Hospital 98, cb 98, West Point, Ga.
Rutland, John Blake, mc univ Nashville 55, cb 82, West Point, Ga.
Thompson, James F., mc univ Georgia —, 98, Langdale.
Total, 14.

Honorary Members

Griggs, Asa Wesley, mc univ Nashville 55, cb 82, West Point, Ga.
Rea, Benjamin Franklin, Sr., mc Jefferson 42, cb 82, LaFayette.
Smith, Lawrence, mc Georgia 52, cb 82, Cusseta.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carmichael, Lawrence Greer, mc Graffenburg 57, cb 82, Strand.
Chambers, —— ——, —— —, cb 96, Langdale.
Coleman, Hiram F., mc Southern —, cb —, Strand.
Davis, James Lawson, mc Alabama —, cb 82, LaFayette.
DeVaughan, John Wesley, mc Vanderbilt 83, cb 83, Mill Town.
Grady, J. Lorenzo, mc Atlanta 95, cb 95, Fredonia.
Hamner, Lovic Pierce, mc —— —, cb Randolph 82, Five Points.
Hodges, Wyatt T., mc Alabama 92, cb 97, River View.
Millford, H. H., mc —— —, cb Lee —, Five Points.
Striplin, ——, mc —— —, cb —, Fredonia.
Total, 10.

*NOTE—As no report has been received from Chambers county this year, the report of 1900 is herewith produced.

CHEROKEE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1897.

OFFICERS.

President, H. L. Ison; Vice-President, S. C. Tatum; Secretary, R. L. McWhorter; Treasurer, A. C. Shamblin; Health Officer, H. L. Appleton. Censors—A. C. Shamblin, H. L. Ison, S. C. Tatum, H. L. Appleton, R. L. McWhorter.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Appleton, Hugh Lowndes, mc univ Vanderbilt 92, cb 92, Center.
Farill, John Paul, mc Atlanta 81, cb 87, Farill.
Ison, Hartford Lee, mc Atlanta Southern 91, cb Tallapoosa 91, Center.
McWhorter, Robert Lee, mc Alabama 87, cb 87, Gaylesville.
Miller, Thomas Gideon, mc Kentucky s of m 86, cb 86, Gaylesville.
Shamblin, Arthur C., mc Chattanooga 92, cb 94, Gaylesville.
Tatum, Samuel Carter, mc univ Vanderbilt 93, cb 93, Center.
Total, 7.

Honorary Members.

Farill, John Washington, ng old law, cb 87, Farill.
Jones, Henry S., mc Atlanta, cb 99, Moshat.
Shamblin, Arnold, ng, old law, cb 87, Broomtown.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Ballard, Ira Chelsea, mc Chattanooga 1900, cb 1900, Leesburg.
Bomar, Richard Ritter, mc Atlanta Southern 85, cb 85, Bomar.
Brown, A. M., mc —— —, cb 87, Round Mountain.
Cook, Edward Augustus, mc univ Vanderbilt 84, cb 84, Kirks Grove.
Crumpton, Wesley Hollingsworth, mc Chattanooga —, cb Cleburne 97, Alexis.
Elliott, Theoderic Miles, mc Kentucky s of m 76, cb 87, Grassland.
Emerson, Jefferson Forrest, mc Chattanooga 95, cb Marshall 98, Rock River.
Matthews, John Patrick, mc univ Nashville 86, cb 87, Maple Grove.
McElrath, William S., mc Memphis Hospital 1900, cb 1900, Cedar Bluff.
Morgan, W. T., mc univ Vanderbilt 92. cb Calhoun 96, Rock Run.
Shamblin, John Louis, mc Atlanta 88, cb 88, Broomtown.
Sharp, George Barnabas, mc Atlanta Southern 93, cb 93, Forney.
Slack, John C., mc —— —, cb 87, Slackland.
Stubbs, William Lee, mc Alabama 99, cb 99, Cedar Bluff.
White, Thomas Noel, mc univ of Georgia 57, cb 87, Spring Garden.
Wills, ——, illegal, Wills.
Wright, Luther, mc Atlanta Southern 98, cb 98, Forney.
Total, 17.

Moved into the county—Ira C. Ballard, from Chattanooga, Tenn., to Leesburg; Dr. Green, from Texas, to Forney.

Moved out of the county—Robert H. McGhee, from Round Mountain to Milldale, Tuscaloosa county; William Y. White, from Spring Garden to Piedmont, Calhoun county; Julius S. Mitchell, from Fullerton to parts unknown.

Examinations—Ira C. Ballard, mc Atlanta Southern 1900, certificate granted; William S. McElrath, Memphis H. M. C., 1900, certificate granted.

Death—C. Story, drowned, Key.

*CHILTON COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, W. E. Stewart; Vice-President, E. A. Matthews; Secretary, ————; Treasurer, ————; Health Officer, ————.
Censors—W. E. Stewart, E. A. Matthews.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Caffey, Hugh William, mc South Carolina 55, cb Lowndes 83, Verbena.
Claughton, Alza B., mc Atlanta —, cb —, Maplesville.
Matthews, Emmett Abram, mc Alabama 87, state board 86, Clanton.
McNeil, R. Berney, mc Birmingham 98, cb 98, Jemison.
Parnell, Charles Nickols, mc Alabama 91, cb 91, Stanton.
Stewart, William Eugene, mc Louisville 75, cb 79, Clanton.
Wise, William Tell, mc Atlanta 89, cb 94, Coopers.
Total, 7.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dawson, James Jefferson (old law), cb Autauga 56, Verbena.
Hayes, Julius Poe, mc 96, cb 96, Clanton.
Pitts, John Spate, mc Nashville 68, cb 79, Verbena.
Wise, John F., mc Graffenburg 56, cb 79, Coopers.
Total, 4.

*NOTE—As no report has been received from Chilton county this year, the report of 1900 is here reproduced.

CHOCTAW COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, J. C. Christopher; Vice-President, Samuel Alman; Secretary, J. L. Granberry; Treasurer, J. L. Granberry; Health Officer, J. L. Granberry. Censors—R. F. Moody, F. E. Christopher, D. T. McCall.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Alman, Samuel mc Louisville 99, cb 99, Melvin.
Christopher, John C., mc Louisville 94, cb 94, DeSotoville.
Christopher, Frank Evans, mc Louisville 94, cb 94, Isney.
Granberry, Joseph Langley, mc Louisville 91, cb 91, Pushmataha.
Johnson, Samuel F., ng, Butler.
Lenoir, Thomas R., mc Alabama 92, cb 92, Womack Hill.
McCall, Daniel T., mc Louisville 94, cb 94, Butler.
Moody, Robert Franklin, mc univ Louisiana 60, cb 79, Butler.
Needham, Eli Wigginton, mc univ Louisiana 58, cb 79, Lusk.
Phillips, Jacob Parker, mc Alabama 86, cb 85, Yantley.
Young, Robert Lee, mc Alabama 86, cb 88, Mt. Sterling.
Total, 11.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Brown, Collins Balsam, mc —— —, cb —, Cocoa.
Turner, Matthews, mc —— —, cb —, Bladon Springs.
Deaths—F. P. Clarke, Sept. 1900; W. F. Kimbrough.

CLARKE COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

President, J. W. Fleming; Vice-President, J. W. Armistead; Sectary, C. E. Pugh; Treasurer, J. M. Cobb; Health Officer, G. S. Chapman. Censors—J. T. Pugh, J. E. Evans, B. S. Barnes, J. W. Armistead, C. E. Pugh.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Armistead, James Westwood, mc Alabama 83, cb 84, Grove Hill.
Barnes, Benjamin Shields, mc univ Pennsylvania 59, cb 84, Suggsville.
Boroughs, Bryan, mc univ Louisville 70, cb 84, Jackson.
Chapman, Gross Scruggs, mc Alabama 79, cb 83, Jackson.
Cobb, Jesse Monroe, mc univ Tulane 84, cb 94, Grove Hill.
Davidson James S., mc Alabama 89, cb 89, Thomasville.
Davis, Henry George, mc Alabama 72, cb 84, Gainestown.
Evans, Joe E., mc Alabama 99, cb 99, Thomasville.
Fleming, John William, mc Alabama 79, cb 84, Salitpa.

Gilmore, John Arcade, mc univ Louisville 86, cb 86, Thomasville.
Hicks, Lamartine Orlando, mc Alabama 73, cb 84, Jackson.
Jeffrey, James Grey, mc Alabama 88, cb 88, Whatley.
Kimbrough, William Augustus, mc Alabama 85, cb 95, Glendon.
Kimbrough, John, mc Alabama 98, cb 98, Thomasville.
Kirvin, Thomas J., mc —— —, cb —, Jackson.
Nichols, Cobb, mc Alabama 98, cb 1901, Jackson.
Pugh, Clement Eugene, mc Alabama 89, cb 89, Grove Hill.
Pugh, Albert Sidney, mc s of m Kentucky 92, cb 93, Grove Hill.
Pugh, John Talbert, mc Alabama 97, cb 97, Jackson.
White, Alexander L., mc Alabama 98, cb 98, Cobbville.

Total, 20.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Armistead, Lee, ng, Campbell.
Barefield, Henry Litman, mc Alabama 72, cb Cherokee 87, Gosport.
Dahlberg, Charles Isaac, mc Alabama 87, cb Choctaw 88, Suggsville.
Prim, Thomas Jefferson, ng, Salitpa.

Total, 4.

Retired—James Threadgill, Thomasville.

Moved into the county—Cobb Nichols, from Tampico, Mexico, to Jackson; T. J. Kirvin, from Texas to Jackson.

Examinations—Cobb Nichols, certificate granted.

CLAY COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President, Thomas Northen; Vice-President, C. W. Darby; Secretary, C. P. Gay; Treasurer, S. J. Gay; Health Officer, Thomas Northen. Censors—S. J. Gay, C. S. Northen, A. R. Stephens, S. J. Gay, J. H. Garrett, B. A. Stephens.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Black, Orlando E., mc univ of South 1901, cb 1901, Rozell.
Darby, Cunningham Wilson, univ Georgia —, cb 87, Rozell.
Garrett, John Henry, mc Atlanta Southern 92, cb 92, Delta.
Gay, Coleman Pendleton, mc Atlanta Southern 97, cb Randolph 97, Lineville.
Gay, Stonewall Jackson, mc Atlanta Southern 88, cb 88, Lineville.
Irvin, William Fletcher, mc univ Louisville 87, cb 87, Millerville.
Jordan, Joseph Wiley, mc Atlanta 91, cb 87, Ashland.
Manning, John Thomas, mc univ Vanderbilt 85, cb 87, Wesobulga.
McDairmid, Angus Kelley, mc Alabama 72, cb 87, Hollins.
Northen, Thomas, mc Atlanta 78, cb 87, Ashland.
Northen, Charles Stephens, mc Atlanta 91, cb 89, Ashland.

Owens, Seaborn Wesley, univ Georgia —, cb 87, Bluff Springs.
Sims, George Nelson, mc Graffenburg 56, cb 87, Ashland.
Stephens, Albert Russell, mc Atlanta Southern 88, cb 88, Delta.
Stephens, Burrell Anderson, mc Alabama 92, cb 92, Lineville.
Total, 15.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

McDaniel, J. C., univ Georgia —, cb 87.
Harris, D. C., univ Georgia —, cb 87.

Moved out of the county—James Olin Griffin, from ——— to ——.

Examinations—James Olin Griffin, mc Alabama, 1900 certificate granted; Orlando E. Black, unic South (Sewanee, Tenn.) 1901, certificate granted.

CLEBURNE COUNTY MEDICAL SOCIETY—Selma, 1884.

OFFICERS.

President, S. L. B. Black; Vice-President, J. M. Lindsey; Secretary, T. J. Johns; Treasurer, T. J. Johns; Health Officer, S. L. Williams. Censors—T. J. Johns, J. D. Creamer, J. W. Kaylor, W. H. Lindsey, Jas. H. Ligon.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Black, Simeon Lovell Bearce, mc Ohio 69, cb 98, Fruithurst.
Creamer, James David, mc Atlanta Southern 93, cb 93, Abernathy.
Johns, Thomas Jefferson, mc Alabama 88, cb 93, Edwardsville.
Kaylor, James William, mc Atlanta Southern 97, cb 97, Arbacoochee.
Ligon, James H., univ Vanderbilt 91, cb 91, Oakfuskee.
Ligon, Wilson Milton, mc Georgia —, cb 84, Oakfuskee.
Lindsey, Jeremiah M., mc Chattanooga 97, cb 97, Fruithurst.
Lindsey, William Henry, mc Chattanooga 94, cb 94, Fruithurst.
Pennington, James Edward, mc Georgia 88, cb 94, Easom Hill, Ga.
Reid, Rhesa Thomas, ng —, cb 84, Edwardsville.
Robert, David P., ng —, cb 84, Oak Level.
Simpson, J. L., mc Atlanta 80, cb Coosa 83, Heflin.
Williams, Sidney Lorenza, mc Chattanooga 94, cb 94, Hightower.
Wright, Lee Roy, mc univ Vanderbilt 1900, cb 1900, Heflin.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Haygood, S. P., cb 84, Soloman.
Hudgens, Noel C., mc Georgia 47, cb 84, Oak Level
Putt, W. T., irregular, Fruithurst.
Sorrell, John Wesley, mc —, cb 84, Chulafinnee.
Total, 4.

Moved out of the county—T. L. Thomason, from Heflin to Atlanta, Ga.; Thomas T. Wheeler, to Steels Depot, St. Clair county.

Examinations—Thomas Tyler Wheeler, mc Chattanooga 1900, certificate granted; William Henry Greer, mc Chattanooga 1900, certificate granted; Lee Roy Wright, mc univ Vanderbilt 1900, certificate granted.

COFFEE COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

President, H. R. Bradley; Vice-President, P. T. Fleming; Secretary, J. P. Phillips; Treasurer, H. F. A. Harp; Health Officer, H. F. A. Harp. Censors—P. T. Fleming, H. R. Bradley, H. F. A. Harp, B. R. Ballard, W. A. Lewis.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ballard, Benj. Randal, mc univ Tennessee 94, cb Crenshaw 94, Alberton.

Blue, Jasper Dixon, ng. 85, Elba.

Bradley, Henry Rudolph, mc Alabama 96, cb Barbour 96, Elba.

Colley, Aaron Thomas, mc univ Louisville 94, cb Pike 94, Enterprise.

Grubbs, Wm. Westford, mc univ Louisville 89, cb Covington 90, Enterprise.

Fleming, Porter Thomas, mc univ Louisville 94, cb 94, Enterprise.

Harp, Hector Frederick Augustus, mc Alabama 93, cb 93, Elba.

Hilliard, Chas. Wesley, mc Alabama 95, cb Pike 95, Elba.

Lewis, Walter Augustus, mc univ Tulane 97, cb Barbour 97, Enterprise.

Phillips, Jas. P., mc Memphis 98, cb Dale 98, Brockton.

Total, 10.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Andrews, — —, Enterprise ————.

Crook, Wm. Henry, mc Alabama 84, cb 85, Victoria.

Dalton, T. E., mc Georgia Eclectic 94, cb 96, Curtis.

Hill, Benj. Augustus, mc Richmond 60, cb 95, Elba.

Howell, David D., mc —, cb —, Brockton.

Mathews, Wm. Forth, mc Atlanta 95, cb 97, Eta.

Lewis, Benj. J., mc Alabama 99, cb 99, Fresco.

Rushing, Francis Marion, mc univ Louisiana 51 ,cb 85, Elba.

Total, 8.

Moved into the county—C. W. Hilliard, from Troy, Pike county, to Elba.

Moved out of the county—N. M. Ham, from Elba to Bullock, Crenshaw county.

COLBERT COUNTY MEDICAL SOCIETY—Montgomery, 1881.

OFFICERS.

President, W. A. Burns; Vice-President, J. E. Wiley; Secretary, H. B. Thompson; Treasurer, H. B. Thompson; Health Officer, H. B. Thompson. Censors—C. R. Palmer, H. W. Blair, W. A. Burns, G. T. McWhorter, H. B. Thompson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Burns, Wm. Arthur, mc Memphis 91, cb Lamar 91, Sheffield.
Blair, Hugh Walter, mc univ Vanderbilt 88, cb 88, Sheffield.
Corns, Christian Z., mc univ Vanderbilt 99, cb Winston 99, Sheffield.
Cooper, Samuel J., mc Memphis Hospital 71, cb —, Tuscumbia.
McWhorter, Geo. Tilghman, mc univ Louisville —, cb 81, Riverton.
Moore, Riley Jackson, mc univ Louisville —, cb 81, Riverton.
Palmer, Charles Richard, mc univ Vanderbilt 83, cb 83, Tuscumbia.
Rand, Edward P., mc univ Tulane 72, cb 81, Tuscumbia.
Robinson, John Abner Pruitt, mc univ St. Louis 72, cb 78, Leighton.
Thompson, Humphrey Bate, mc Louisville 93, cb 93, Tuscumbia.
Walker, David Harris, mc univ Vanderbilt 81, cb 82, Spring Valley.
Wiley, James E., mc Alabama 96, cb 96, Tuscumbia.
Wall, Alfred Alexander (retired), mc Pennsylvania 49, cb Madison 78, Tuscumbia.

Total, 13.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carter, Patrick Parkerson, mc univ Louisville, 66, cb 79, Brick.
Diebold, — —, mc Tulane ————, Sheffield.
Gilmore, Francis T. mc Louisville ———— (retired), Tuscumbia.
King, Frederick Q. ————.
Masterson, Allent Aaron, mc univ Louisville 89, cb Lawrence 89, Leighton.
Masterson, John H., mc univ Louisville 89, cb 89, Cherokee.
McCluskey, James A., ng, Rock Creek.
Morris, Charles Thomas, mc univ Louisville 75, cb Henry 78, Sheffield.
O'Reilley, John Edmund, mc Alabama 74, cb 84, Cherokee.
Smith, James Clark, mc Vanderbilt 85, cb Elmore 85, Tuscumbia.
Williams, Charles W., mc Nashville Med. College 81, cb 81, Cherokee.

Total, 11.

Moved into the county—Samuel J. Cooper, from Memphis, Tenn., to Tuscumbia; Wyatt Heflin Blake, from Wetumpka, Elmore county, to Sheffield; — — Henry, from ———— to Leighton; C. M. Dillard, from New Orleans, to Sheffield.

Moved out of the county—Benj. Johnson, from Leighton, to ————.

CONECUH COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, W. F. Betts; Vice-President, J. N. Mixon; Secretary, Andrew Jay; Treasurer, Andrew Jay; Health Officer, P. M. Bruner. Censors.—W. F. Betts, E. L. Stallworth, P. M. Bruner, Andrew Jay, R. T. Holland.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Betts, William Frank, mc Tulane 93, cb 95, Evergreen.
Bradley, Ely, mc univ Pennsylvania 59, cb 84, Bellville.
Bruner, Pinckney McDonald, mc Alabama 61, cb Lowndes 79, Evergreen.
Fountain, Hugh Thomas, mc Alabama 72, cb Monroe 79, Burnt Corn.
Holland, Richard Thomas, mc Alabama 90, cb Escambia 90, Castleberry.
Jay, Andrew, mc Alabama 72, cb 84, Evergreen.
Mixon, John Nelson, univ Louisville 98, cb 98, Commerce.
McCreary, John Absalom, mc univ Louisiana 60, cb 84, Evergreen.
McKittrick, Adam Alexander, mc Georgia 60, cb 84, Evergreen.
Ruback, Carl, mc Memphis 96, cb 96, Evergreen.
Shaver, William Benjamin, univ Georgia Reform 60, cb 84, Herbert.
Stallworth, Emmet Lemuel, mc Alabama 94, cb 94, Evergreen.
Taliaferro, Charles Thomas, mc Atlanta 59, cb 84, Evergreen.
Tatum, Fletcher Lothair, mc Atlanta 95, cb Pike 95, Brooklyn.
Watson, William, mc Alabama 93, cb 93, Repton.
Total, 15.

Honorary Member.

Belo, Frederick Arthur, mc Jefferson 74, cb —, Evergreen.

COOSA COUNTY MEDICAL SOCIETY—Birmingham, 1883.

OFFICERS.

President,A. J. Peterson; Vice-President, J. C. Cousins; Secretary, Julius Jones; Treasurer, E. Argo; Health Officer, J. W. Pruett. Censors—J. Jones, A. J. Peterson. E. Argo, J. C. Cousins, W. A. Holloway.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Argo, Eugene, mc univ Vanderbilt 91, cb 91, Goodwater.
Cousins, James Columbus, mc univ Maryland 91, cb 91, Equality.
Dunlap, William B., ng, cb 85, Hollins.
Grimes, John W., mc univ of South 99, cb 99, Marble Valley.
Holloway, William A., mc Alabama 89, cb Tallapoosa 89, Kelleyton.

Jones, Julius, mc univ Vanderbilt 84, cb 84, Rockford.
McKinney, Eugene P., mc univ Louisville, 93, cb 93, Kelleyton.
Moon, William Henry, mc Alabama 79, cb 83, Goodwater.
Nolen, Richard Spencer, mc Kentucky s of m 89, cb 89, Equality.
Peterson, Albert James, mc univ Vanderbilt 89 ,cb 89, Hanover.
Pruett, James W., mc Alabama 92, cb Talladega 92, Weogufka.
Total, 11.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dollar, Henry Clay, mc Atlanta 75, cb 83, Marble Valley.
Hadox, Wm., mc univ Tennessee 91, cb Elmore 91, Travelers Rest.
Mathews, John Thomas, mc univ Tulane 73, cb 84, Hanover.
Maxwell, Cecil Kelley, mc Alabama 92, cb 92, Kellyton.
Salter, Paschal Preston (botanist), ng, cb 84, Goodwater.
White, William Tanner, mc Tennessee 86, cb 86, Rockford.
Total, 6.

Moved out of the county—Jas. M. Smith, from Nixburg to Sylacauga, Talladega county.

Examinations—J. C. McLeod, mc Birmingham, certificate granted; J. M. Smith, mc Alabama, certificate granted.

Deaths—W. J. Peddy, valvular heart disease, October, 1900, age 69, Rockford.

*COVINGTON COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

President, W. E. Sentell; Vice-President, J. R. Ealum; Secretary, ————————; Treasurer, J. R. Ealum; Health Officer, ————————.
Censors—W. E. Sentell, J. R. Ealum, T. C. Bozeman, W. T. Stenson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bozeman, T. Compton, mc Alabama 92, cb 93, Searight.
Ealum, James R., mc Alabama 91, cb 91, Oakey Streak.
Sentell, Wilbur Eugene, mc Alabama 89, cb 91, Andalusia.
Stenson, William T., mc Atlanta 91, cb 91, Rose Hill.
Street, William N., mc——— —, cb —, Hilton.
Total, 5.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Atkinson, Alexander G., ng, Red Level.
Baggett, ———, mc ——— —, cb —, Eclectic.
Brown, T. J., (illegal), Rat.
Cawthorn, Samuel J. S., ng, cb 90, Andalusia.
Patrick Thomas, ng, Green Bay.

Miller, ———, (illegal), Florella.
Pierson, W. W., (illegal), Red Level.
Roberts, James M., ng, Beda.
Sellers, Thomas L., ng, Andalusia.
Whaley, James A., ng, Green Bay.
Total, 10.

*NOTE—As no report has been received from Covington county this year, the report of 1900 is here reproduced.

CRENSHAW COUNTY MEDICAL SOCIETY—Mobile, 1882.

OFFICERS.

President, J. R. Horn; Vice-President, F. M. T. Tankersley; Secretary, C. R. Rushton; Treasurer, C. R. Rushton; Health Officer, G. S. Tankersley. Censors—J. R. Horn, F. M. T. Tankersley, C. R. Rushton, S. W. May, A. J. Jones.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Avant, William Watts, mc univ Tennessee 90, cb —, Patsburg.
Burgamy, William Thomas, mc Jefferson 59, cb 88, Rutledge.
Coston, William Henry, mc Atlanta Southern 89, cb 88, Brantley.
Eiland, Thomas C., 98, cb 98, Bullock.
Ham, Nelson Matthews, mc Alabama 98, cb Coffee 98, Bullock.
Horn, Richard Kersey, mc Georgia Eclectic 81, cb 84, Bullock.
Horn, Joseph Robert, mc Alabama 87, cb 87, Luverne.
Jones, Andrew Jackson mc Louisville 85, cb 85, Highland Home.
Kendrick, James Evans, mc Alabama 69, cb 82, Luverne.
Knight, William Peter, mc Atlanta Southern 92, cb Butler 92, Luverne.
May, Samuel William, mc phys and surg Baltimore 82, cb 83, Brantley.
Moxley, Jos. Benjamin, mc Georgia Eclectic 99, cb 99, Brantley.
Odom, William F., mc univ Tennessee 94, cb Covington 94, Searight.
Richardson, Roddie, mc univ Tennessee 98, cb 98, Salsoda.
Rushton, Christopher Reid, mc Atlanta Southern 92, cb Covington 92, Rutledge.
Sheppard, Charles Webb, mc Atlanta Southern 91, cb Butler 91, Honoraville.
Thankersley, Felix Marcus Tullius, univ Tennessee 85, and Tulane 95, cb 85, Highland Home.
Tankersley, George Stewart, mc Tulane 93, cb 93, LaPine.
Thrower, Steven Simon, ng, cb 84, Bradleyton.
Total, 19.

Honorary Member.

Williamson, Geo. Washington, mc Alabama 93, cb 93, Goshen.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dennis, S. H., mc univ Graffenberg 58, cb Pike 78, Petrey.
Dyer, Edward Fox, nx, cb 84, Rutledge.
Ford, Julian C., mc ——— —, cb Pike —, Bradleyton.
Pryor, William Dayton, mc univ Tennessee 57, cb Butler 81, Aiken.
Ray, Thomas Quincy, mc Atlanta Southern 94, cb 94, Searight.
Total, 5.

Moved into the county—S. H. Dennis, from Oulustie Creek, Pike county to Petrey; N. M. Ham, from Elba, Coffee county, to Bullock.

Moved out of the county—L. E. Broughton, from Searight to Andalusia, Covington county; T. J. Stough, from Petrey to Montgomery.

Deaths—D. N. Moxley, Glenwood.

CULLMAN COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

President, G. Hartung; Vice-President, W. W. Whorton; Secretary, M. L. Johnson; Treasurer, G. Hartung; Health Officer, John Yielding. Censors—G. Hartung, G. W. Watts, R. H. Baird, John Yielding, M. L. Johnson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baird, Robert Henry mc Alabama 92, cb Blount 92, Cullman.
Brindley, Bethea Pace, mc Atlanta Southern 92, cb 92, Simcoe.
Cossey, Thomas Watson, mc Atlanta Southern 91, cb 96, Jones Chappel.
Harris, George Riley, ng, cb 92, Garrison Point.
Hartung, Gottloeb, mc Wuerzburg, Germany 78, cb 92, Cullman.
Humphries, Roman Willis, mc Atlanta Southern 92, cb 96, Logan.
Johnson, Marquis LaFayette, mc Alabama 75, cb Marshall 86, Cullman.
Martin, William Henry, mc univ Tennessee 88, cb 89, Hanceville.
Moon, James Prince, mc univ Grant 1900, cb 1901, Bremen.
Price, William Henry, mc univ Tennessee 90, cb Cleburne 98, Crane Hill.
Walling, John Henry, ng, cb 89, Vinemont.
Watts, George Wesley, mc Atlanta Southern 88, cb 89, Holly Pond.
Whorton, William Walton, mc univ Vanderbilt 90, cb Marshall 90, Cullman.
Yielding, John, mc univ Grant 94, cb Cullman 94, Walter.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Burnum, Francis Marion, mc univ Nashville 79, cb 86, Cullman.
Crumbley, Jessie James, mc Atlanta 92, cb 94, Holly Pond.
Haden, Henry Hughes, mc univ Vanderbilt 86, cb Blount 86, Holly Pond.
Hudson, William Henry, mc ——— —, cb Blount 86, Walter.
Herrin, Edward Calvin, ng, (illegal), Trimble.
Johnston, Pinckney Thomas, mc Louisville 83, cb Marion 85. Bremen.
Keller, Louis Martin, mc Atlanta 88, cb 88, Etha.
McLarty, George Washington, mc Nashville 76, cb 86, Joppa.
Mangum, William Landrum, mc Georgia 59, cb 86, Cullman, (retired).
Musgrove, Phillip Mason, mc Memphis 60, cb 84, Cullman, (retired).
Oden, James Henry, mc Old Law, cb 88, Unity.
Winn, James Thomas, mc univ Vanderbilt 89, cb 89, Baileyton.

Total, 12.

Moved into the county—Crumbley, Jessie James, from Draketown, Ga., to Holly Pond; Haden, Henry Hughes, from Summit, Blount county, to Holly Pond.

Moved out of the county, John Smith Ainsley, from Trimble to Lowndesboro; James Niles Buchannon, from Cullman to Adger, Jefferson county; Luther Hays, from Cullman to North Birmingham; Hamilton Hany Kimey, from Bremen to North Birmingham.

Examinations—James Price Moon, mc Grant University, certificate granted; Luther Hays, mc univ Grant 1900, certificate granted.

Death—William Alexander McDonald, Baileyton.

DALE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President—S. M. C. Howell; Vice-President, B. F. Coleman; Secretary, R. F. Harper; Treasurer, R. F. Harper; Health Officer, E. B. Ard. Censors—E. B. Ard, R. F. Harper, F. B. Cullens, B. L. Byrd, J. C. Oates.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ard, Erastus Byron, mc univ Vanderbilt, 87, cb 87, Ozark.
Barnes, Charles Duncan, mc Alabama 97, cb 97, Ozark.
Byrd, Benjamin Littleberry, mc Alabama 92, cb 92, Daleville.
Coleman, Benjamin Franklin, mc univ Nashville 61, cb Bullock 75, Ozark.
Cullens, Frederick Bacon, ng, State Board 97, Ozark.
Harper, Robert Franklin, mc Alabama 88, cb Coffee 88, Ozark.
Holman, Henderson Loony, mc Memphis 98, cb Marion 98, Ozark.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dennis, S. H., mc univ Graffenberg 58, cb Pike 78, Petrey.
Dyer, Edward Fox, nx, cb 84, Rutledge.
Ford, Julian C., mc ——— —, cb Pike —, Bradleyton.
Pryor, William Dayton, mc univ Tennessee 57, cb Butler 81, Aiken.
Ray, Thomas Quincy, mc Atlanta Southern 94, cb 94, Searight.
Total, 5.

Moved into the county—S. H. Dennis, from Oulustie Creek, Pike county to Petrey; N. M. Ham, from Elba, Coffee county, to Bullock.

Moved out of the county—L. E. Broughton, from Searight to Andalusia, Covington county; T. J. Stough, from Petrey to Montgomery.

Deaths—D. N. Moxley, Glenwood.

CULLMAN COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

President, G. Hartung; Vice-President, W. W. Whorton; Secretary, M. L. Johnson; Treasurer, G. Hartung; Health Officer, John Yielding. Censors—G. Hartung, G. W. Watts, R. H. Baird, John Yielding, M. L. Johnson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baird, Robert Henry mc Alabama 92, cb Blount 92, Cullman.
Brindley, Bethea Pace, mc Atlanta Southern 92, cb 92, Simcoe.
Cossey, Thomas Watson, mc Atlanta Southern 91, cb 96, Jones Chappel.
Harris, George Riley, ng, cb 92, Garrison Point.
Hartung, Gottloeb, mc Wuerzburg, Germany 78, cb 92, Cullman.
Humphries, Roman Willis, mc Atlanta Southern 92, cb 96, Logan.
Johnson, Marquis LaFayette, mc Alabama 75, cb Marshall 86, Cullman.
Martin, William Henry, mc univ Tennessee 88, cb 89, Hanceville.
Moon, James Prince, mc univ Grant 1900, cb 1901, Bremen.
Price, William Henry, mc univ Tennessee 90, cb Cleburne 98, Crane Hill.
Walling, John Henry, ng, cb 89, Vinemont.
Watts, George Wesley, mc Atlanta Southern 88, cb 89, Holly Pond.
Whorton, William Walton, mc univ Vanderbilt 90, cb Marshall 90, Cullman.
Yielding, John, mc univ Grant 94, cb Cullman 94, Walter.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Burnum, Francis Marion, mc univ Nashville 79, cb 86, Cullman.
Crumbley, Jessie James, mc Atlanta 92, cb 94, Holly Pond.
Haden, Henry Hughes, mc univ Vanderbilt 86, cb Blount 86, Holly Pond.
Hudson, William Henry, mc ——— —, cb Blount 86, Walter.
Herrin, Edward Calvin, ng, (illegal), Trimble.
Johnston, Pinckney Thomas, mc Louisville 83, cb Marion 85. Bremen.
Keller, Louis Martin, mc Atlanta 88, cb 88, Etha.
McLarty, George Washington, mc Nashville 76, cb 86, Joppa.
Mangum, William Landrum, mc Georgia 59, cb 86, Cullman, (retired).
Musgrove, Phillip Mason, mc Memphis 60, cb 84, Cullman, (retired).
Oden, James Henry, mc Old Law, cb 88, Unity.
Winn, James Thomas, mc univ Vanderbilt 89, cb 89, Baileyton.
Total. 12.

Moved into the county—Crumbley, Jessie James, from Draketown, Ga., to Holly Pond; Haden, Henry Hughes, from Summit, Blount county, to Holly Pond.

Moved out of the county, John Smith Ainsley, from Trimble to Lowndesboro; James Niles Buchannon, from Cullman to Adger, Jefferson county; Luther Hays, from Cullman to North Birmingham; Hamilton Hany Kimey, from Bremen to North Birmingham.

Examinations—James Price Moon, mc Grant University, certificate granted; Luther Hays, mc univ Grant 1900, certificate granted.

Death—William Alexander McDonald, Baileyton.

DALE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President—S. M. C. Howell; Vice-President, B. F. Coleman; Secretary, R. F. Harper; Treasurer, R. F. Harper; Health Officer, E. B. Ard. Censors—E. B. Ard, R. F. Harper, F. B. Cullens, B. L. Byrd, J. C. Oates.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ard, Erastus Byron, mc univ Vanderbilt, 87, cb 87, Ozark.
Barnes, Charles Duncan, mc Alabama 97, cb 97, Ozark.
Byrd, Benjamin Littleberry, mc Alabama 92, cb 92, Daleville.
Coleman, Benjamin Franklin, mc univ Nashville 61, cb Bullock 75, Ozark.
Cullens, Frederick Bacon, ng, State Board 97, Ozark.
Harper, Robert Franklin, mc Alabama 88, cb Coffee 88, Ozark.
Holman, Henderson Loony, mc Memphis 98, cb Marion 98, Ozark.

Howell, Samuel Matthew Crawford, mc Atlanta 91, cb 91, Midland City.
Mixson, William Daniel, mc Chattanooga 98, cb 98, Haw Ridge.
Norris, Roy Hart, mc Alabama 97, cb Monroe 97, Charlton.
Oates, Joshua Camillus, mc univ Tennessee 98, State Board 98, Pinckard.
Powell, Charles B, mc Alabama 1900, cb Geneva 1900, Skipperville.
Reynolds, Robert Davis, mc Alabama 80, cb 87, Ozark.
Yarbrough, Frank Reid, mc univ Vanderbilt 98, cb Crenshaw 98, Ozark.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Baxter, Hugh Curry, mc Atlanta 86, cb 87, Midland City.
Bell, Seaborn Bentley, mc Georgia Reform 92, cb 95, Echo.
Dalton, Christopher Columbus, mc Georgia Reform 91, cb 91, Wicksburg.
Dawson, George Washington, mc Alabama 94, cb Chilton 94, Newton.
Davie, Mercer Stillwell, mc Jefferson 67, cb 87, Pinckard.
Lingo, John Henry, ng, State Board 97, Clayhatchie.
Morris, Andrew Jackson, mc Atlanta Southern 7, cb Geneva 89, Newton.
Scott, Marcus Tullius Cicero, mc Birmingham 97, cb Henry 97, Clopton.
Spears, Philip Benton, mc Georgia Reform 91, cb 91, Pinckard.
Weed, Samuel LaFayette, mc Alabama 85, cb 87, Ariosto.
Total, 10.

Retired—Bottoms, James Augustus, 56, cb 87, Ozark, Holman, John Clinton, mc Jefferson, 56, cb 87, Ozark.

Moved into the county—Frank Reid Yarbrough, from Victoria, Coffee county, to Ozark; Charles B. Powell, from Slocum, Geneva county, to Skipperville.

Moved out of the county—William Ree Belcher, from Daleville to Hartford, Geneva county.

DALLAS COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

President, W. M. Pitts; Vice-President, Jas. M. Donald; Secretary, B. B. Rogan; Treasurer, S. Kirkpatrick; Health Officer, S. G. Gay. Censors—J. P. Furniss, E. B. Ward, C. Ritter, S. G. Gay, Jas. M. Donald.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allison, Samuel Blakeman, mc Louisville 91, cb 93, Carlowville.
Caine, Vaughn Holmes, mc Alabama 92, cb Perry 92, Safford.
Chapman, John Thomas, mc Alabama 85, cb Marengo 87, Selma.
Cochrane, Robert Miller, mc univ Virginia 65, cb 78, Eleanor.
Donald, James Marion, mc Alabama 84, cb 84, Bridges.
Donald, Joseph Marion, mc univ Louisiana 54, cb 78, Howell.
DuBose, Frank Goodwin, mc Tulane 93, cb Talladega 93, Selma.
Edwards, Daniel B., mc Alabama 98, cb 98, Polk.
Furniss, John Perkins, mc univ New Orleans 66, cb 78, Selma.
Gay, Samuel Gilbert, mc Alabama 87, cb 87, Selma.
Gee, William Henry, mc Alabama 98, cb Mobile 98 ,Burnsville.
Groves, Joseph Asbury, mc South Carolina 54, cb 78, Orrville.
Harper, William Wade, mc Tulane 91, cb 91, Selma.
Howard, Thomas Greenwood, mc univ Washington 68, cb Autauga 78, Selma.
Kendall, William Quinton, mc Phys. and Surg. Baltimore 80, cb 80, Berlin.
King, Goldsby, mc South Carolina 80, cb 80, Selma.
Kirkpatrick, Samuel, mc univ Vanderbilt 88, cb 88, Selma.
Kyser, James Hervey, mc univ Tulane 97, cb 97, Richmond.
Lockhart, Thomas Earnest, mc univ Tulane 90, cb Perry 90, Selma.
Moore, John Thomas, mc Alabama 91, cb 91, Orrville.
Peagues, Charles Ives, mc univ Tulane 93, cb 96, Safford.
Phillips, William Crawford, mc Tulane 73, cb 78, Vallegrande.
Pitts, William McLean, mc unic Louisville 94, cb 94, Selma.
Riggs, Samuel Watt, mc Phys. and Surg. Baltimore 93, cb —, Pleasant Hill.
Ritter, Clement, mc Jefferson 90, cb DeKalb 90, Selma.
Rogan, Barney Burns, mc univ Grant 96, cb 96, Selma.
Sellers, Wm. Thomas, mc Alabama, 92, cb Bibb 92, Browns.
Sutton, Robert Lee, mc univ Columbia 89, cb Lee 89, Orrville.
Taylor, William Henry, mc Alabama 87, Marengo 87, Central Mills.
Ward, Edward Burton, mc univ New York 82, cb Hale 82, Selma.

Total, 30.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allison, Joseph D. (retired), mc South Carolina 78, cb 78, Carlowville.
Boykin, Joseph Owen, mc Transylvania 43, cb 78, Tilden.
Boykin, Samuel Swift, mc Alabama 96, cb Mobile 98, Portland.
Burwell, Lincoln Laconia (col.), mc Leonard N. C. 89, State Board 89, Selma.

Dye, J. H., mc Eclectic, New York ————.
DuBose, J. J., mc ——— —, cb —, Summerfield.
Fuller, Emmet Lee, mc Alabama 1900, cb 1900, Summerfield.
Hall, John James, mc univ Louisiana 67, cb 78, Orrville.
Kyser, George Washington, mc Richmond 65, cb 78, Richmond.
Moore, John Welsey (col.), mc Meharry 99, cb Clark 99, ———.
Moseley, Elijah Bucklee, mc univ Louisiana 57, cb 78, Boguechitto.
Pugh, Braxton Bragg, mc Alabama 89, cb Clark 89, Browns.
Stewart, William Champney, mc South Carolina 58, cb 78, Soap Stone.
Total, 13.

Moved into the county—E. L. Fuller, from Perry county to Summerfield.

Examinations—William Bradley Palmer, mc univ Tulane, certificate granted; Emmet Lee Fuller, mc Alabama 1900, certificate granted; Carlyle Keyser Yates, mc Baltimore 1900, certificate granted.

Deaths—John Alexander McKinnon, nephritis, Selma; John Alonzo Weisinger, tuberculosis, Talmage; Kenneth McKinnin, Pleasant Hill.

DeKALB COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

President—H. P. McWhorter; Vice-President, W. I. Wright; Secretary, W. E. Quinn; Treasurer, T. H. Appleton; Health Officer, E. P. Nicholson. Censors—W. E. Quinn, W. S. Duff, T. H. Appleton, H. P. McWhorter, E. P. Nicholson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Appleton, Thomas Hayne, mc Chattanooga 92, cb 92, Collinsville.
Black, John Hugh, mc Georgia Eclectic 93, cb 93, Halford.
Duff, William Sayers, mc Alabama 89, cb 90, Ft. Payne.
Elrod, James Tolliver, mc univ of the South 1900, cb Marshall 1901. South Hill..
Harrison, Joseph J., mc univ Vanderbilt 93, cb 93, Geraldine.
Killian, Henry Elliott, ng, cb 89, Brandon.
McWhorter, Horace Puckett, mc univ Vanderbilt 81, cb 85, Collinsville.
Miller James Taylor, mc univ Vanderbilt 78, cb 85, Collinsville.
Moore, Wiley Evan, mc Atlanta 90, cb Shelby 90, Lebanon.
Nicholson, Edward Pierson, mc univ Nashville 61, cb 85, Valley Head.
Quin, William Everett, mc Kentucky s of m 81, cb 85, Ft. Payne.
Sherman, James Richard, mc Georgia Eclectic 89, cb Marshall 89, Sand Mountain.

Wright, William Ira, mc univ of Vanderbilt 90, cb 91, Dawson.
Wright, Charles Wesley, mc Alabama 93, cb 93, South Hill.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bailey, Alexander Henry, ng, cb 89, Chavies.
Bogle, Joseph H., mc Vanderbilt 1900, cb 1900, Chavies.
Bush, George Volney, mc Southern —, cb Marshall 99, Lebanon.
Green, Philmon Buel, mc univ Vanderbilt 76, cb 85, Ft. Payne.
Green, William Martin, mc univ Vanderbilt 77, cb 85, Ft. Payne.
Hall, John Decard, mc Southern 92, cb 97, Chavies.
Howard, Joshua Elijah, mc univ Tennessee 86, cb 95, Henegar.
Smith, Samuel Parish, mc Kentucky c of m 89, cb 89, Crossville.
Smith, William A., Proforma Certificate, cb Coosa 93, Luttrell.
Winston, John Nelson, mc Louisville 66, cb 85, Valley Head.
Wyatt, J. J. ng, cb 89, Geraldine.
Total, 11.

Moved into the county—George V. Bush, from Georgia to Lebanon; Sidney J. Vann, from ——— to Rock Springs.

Moved out of the county—Isaac William Howard, from Sulphur Springs, to Madison, Madison county.

Examinations—Joseph H. Bogle, certificate granted; Sidney Johnston Vann, mc Georgia 1900, certificate granted.

Death— William Jones Wooten, ng, cb 89, Musgrove.

ELMORE COUNTY MEDICAL SOCIETY—Birmingham, 1887.

OFFICERS.

President, W. A. Huddleston; Vice-President, J. W. Sewell; Secretary, W. M. Gamble; Treasurer, W. M. Gamble; Health Officer, S. O. Humphries. Censors—O. S. Justice, J. T. Rushin, S. O. Humphries, W. H. Blake, J. A. Howle.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Blake, Wyatt Heflin, mc univ Vanderbilt 84, cb Randolph 87, Wetumpka.
Estes, Mordeca James Elliot, mc Atlanta 95, cb 95, Deatsville.
Fitzpatrick, Phillip, mc Tulane 63, cb 84, Wetumpka.
Gamble, William Melvin, mc Louisville 87, cb Jefferson 87, Wetumpka.
Garrett, Allen Jefferson, mc Alabama 93, cb 93, Kent.
Howle, James Augustus, mc Alabama 90, cb 90, Eclectic.
Huddleston, Wm. Allen, mc Atlanta 80, cb 84, Wetumpka.
Humphries, S. Osceola, mc Jefferson 85, cb 85, Speigner.
Justice, Oscar Suttle, mc Alabama 85, cb 85, Central.

Milner, Samuel Robert, mc Alabama 93, cb 94, Jordan.
Moon, Eddie P., mc univ Vanderbilt 98, cb 98, Buyck.
Nix, James Ringold, mc South Carolina 67, cb 84, Deatsville.
Robinson, Edwin Hunt, mc Memphis Hospital 49, cb 84, Robinson Springs.
Scott, Harvey Edward, mc univ Vanderbilt 80, cb Dallas 80, Wetumpka.
Sewell, Japez Wesley, mc Alabama 90, cb 90, Titus.
Sewell, Neal Baker, mc univ Vanderbilt 86, cb 86, Buyck.
Total, 16.

Honorary Member.

Gamble, John Wesley, mc Louisville 72, cb Blount 74, Wetumpka.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Beckett, Thomas Travis, mc Tulane 59, cb 84. Titus.
Boddie, Henry B., (illegal), Tallassee.
Campbell, Archie Graham, ng, cb 84, Tallassee.
Dorough, John William, mc Atlanta 94, cb 94, Tallassee.
Fielder, Martin Lucius, mc Graffenburg 59, cb 84, Eclectic.
Huddleston, Robert Lee, mc Atlanta 80, cb Autauga 92, Deatsville.
Jowers, Sol. Franklin, mc Alabama 85, cb 85, Central.
Lett, Harrison Templeton, mc Tulane 75, cb 84, Good Hope.
Cowell, James Robert (retired), mc Graffenberg 65, cb 84, Tallassee.
Powell, Abel Anderson (retired), mc Atlanta Southern 92, cb 92, Tallassee.
Robinson, Dudley, mc Alabama 51, cb —, Robinson Springs.
Rushin, James Thomas, mc univ Tennessee 83, cb 84, Tallassee.
Warren, William Allen, mc Alabama 85, cb 85, Tallassee.

Moved out of the county—J. M. Wallace, from Tallassee to Montgomery; W. H. Blake, from Wetumpka to Sheffield, Colbert county; James Robert Haigler, from Wetumpka to Dayton, Marengo county; Robert Daniel Howe, from Elmore to Lee county.
Total, 13.

Examinations—James Marvin Wallace, Vanderbilt 1899, certificate granted; J. W. Maddox, mc univ Tennessee 1900, certificate granted; Jessie Gulledge, mc Alabama 1900, certificate granted; E. N. Rawls, mc Vanderbilt 1896, certificate granted; Joseph O. Dennison, mc Vanderbilt 1893, certificate refused.

Deaths—Robert McCullough Hill, mc Alabama 94, cb 96, Ware, remittent fever.

ESCAMBIA COUNTY MEDICAL SOCIETY—Greenville, 1885.

OFFICERS.

President, S. C. Henderson; Vice-President, J. E. Martin; Secretary; P. H. M. Tippin; Treasurer, P. H. M. Tippin; Health Officer,

P. H. M. Tippin. Censors—S. C. Henderson, E. T. Parker, M. Foshee, W. L. Abernathy, P. H. M. Tippin.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, William L., mc Alabama 94, cb Monroe 94, Flomaton.
Abernathy, William Henry, mc Transylvania 48, cb Monroe 77, Flomaton.
Foshee, Mason, mc univ Virginia 96, cb 96, Brewton.
Henderson, Stephen Cary, mc Alabama 87, cb 87, Brewton.
Malone, Henry Holcombe, mc univ New York 60, cb 86, Brewton.
Martin, John Elijah, mc Alabama 75, cb Bullock 79, Brewton.
Parker, Edwin Theodore, mc Tulane 91, cb 91, Brewton.
Smith, Price Hall, mc Alabama 94, cb 94, Brewton.
Smith, Russell Aubrey, mc Alabama 1900, cb Monroe 1900, Hammac.
Tippin, Philip Henry Mulcahy, mc Alabama 94, cb 94, Brewton.
Webb, Alfred Pellar, mc Alabama 96, cb Washington 97, Atmore.
Total, 11.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Christian, — —, mc —, cb —, Jack Springs.
Ford, J. T. B., mc —, cb 86, Pollard.
Kelley, Edward, mc —— —, cb —, Hammac.
Owens, Jared Durwood, mc Alabama 79, cb Butler 79, Pollard.
McClendon, Lewis Marshall, mc Alabama 74, cb Butler 84, Brewton.
Total, 5.

Moved into the county—Edward Kelley; Russell A. Smith, from Monroe county to Hammac.

ETOWAH COUNTY MEDICAL SOCIETY—1878.

OFFICERS.

President, J. P. Ralls; Vice-President, E. T. Camp; Secretary, R. F. McConnell; Treasurer, E. S. Jones; Health Officer, E. T. Camp. Censors—E. S. Jones, J. W. Lawrence, F. P. Landers, W. H. Acton, J. P. Stewart.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Acton, Wm. H., mc Alabama 86, cb Jefferson 86, Alabama City.
Baskin, Herchell Virgil, mc Alabama 98, cb 98, Coats Bend.
Camp, Erasmus Taylor, mc univ Vanderbilt 88, cb Lauderdale 88, Alabama City.
Ellison, John Henry, mc univ Vanderbilt 88, cb 89, Walnut Grove.
Guice, Chas. Lee, mc Chattanooga 93, cb Dale 93, Gadsden.
Jones, Eli Spear, mc Alabama 83, cb Jefferson 83, Gadsden.
Landers, Franklin Pearce, mc Atlanta 83, cb 84, Hokes Bluff.
Lawrence, John William, mc univ Vanderbilt 86, cb Cherokee 86, Turkey Town.

Liddell, John Brown, mc Atlanta 82, cb 82, Gadsden.
McConnell, Robert Franklin, mc Atlanta 81, cb St. Clair 81, Attalla.
Ralls, John Perkins, mc Georgia 44, cb 78, Gadsden.
Stewart, John Pope, mc Alabama 86, cb 86, Attalla.
Vann, Sidney Johnston, mc Georgia 1900, cb DeKalb 1900, Rock Springs .
Wilson, George Washington, mc Alabama 95, cb 96, Attalla.
Wood, James Harden, mc univ Vanderbilt 82, cb 82, Attalla.
Total, 15.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Anderson, Robert Bailey, mc Atlanta —, cb 88, Walnut Grove.
Baker, Daniel Harrison, mc univ Vanderbilt 82, cb 82, Gadsden.
Coggins, Wm. Thomas, mc South Carolina —, cb 88, Keener.
Dowdy, Edgar Lee, mc univ Vanderbilt 76, cb 76, Keener.
Edwards, Wm. Sterling, Kentucky, s of m 85, cb 85, Gadsden.
Ford, Wm. Franklin, mc univ Vanderbilt 95, cb 95, Hokes Bluff.
Funderberg, Wm. Louis, mc Atlanta Southern 82, cb DeKalb 82.
Gilliland, Henry Forney, mc Louisville 90, cb —, Hill.
Hawkins, J. P., mc Chattanooga, 94, cb Jefferson 94, Clear Springs.
Hurst, James A., mc Alabama 91, cb 91, Walnut Grove.
Kinnett, Jackson Flavis, mc Georgia Eclectic 92, cb Shelby 92, Markton.
Lester, J. H., mc ——— —, cb —, Attalla.
Morgan, George Washington, mc univ Nashville 89, cb 89, Keener.
Plaine, Charles (col.), mc Meharry 1900, State Board 1900, Gadsden.
Slaughter, Charles Jefferson, mc ———, —, cb 81, Aurora.
Total, 15.

Moved into the county—Henry Forney Gilliland, from Kentucky, to Hill; J. P. Hawkins, from St. Clair to Clear Springs.

Moved out of the county—R. D. Blackshear, from Gadsden to Dothan, Henry county; Robt. M. Dowdy, from Legard to Cherokee county; E. J. Edwards, from Cobb City to Calhoun county.

Examinations—Wm. Henry Coleman (col.), Meharry 1900, certificate withheld because applicant violated law by applying for examination to this board in less than twelve months from date of his examination by Hale county board.

FAYETTE COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, J. D. Young; Vice-President, J. G. Smith; Secretary, W. A. Graham; Treasurer, W. A. Graham; Health Officer, M. R. Seay. Censors—Victor Savage, J. D. Young, J. G. Smith, J. F. Randolph, W. A. Graham.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Collins, J. William, Old Law, cb 84, Spencer.
Graham, Wm. Alexander, mc Louisville 92, cb 92, Fayette.
Hocutt, Lucius Thornton, mc Atlanta 58, cb 84, Davis Creek.
Hollis, Jonathan Shelton, mc Alabama 81, cb Lamar 81, Covin.
Jones, Wm Wilburn, Old Law 58, cb 84, Newtonville.
Jones, Tarley William, mc Vanderbilt 1900, cb 1900, Newtonville.
Randolph, John Franklin, mc Memphis Hospital 99, cb 99, Wayside.
Savage, Victor, mc Vanderbilt 89, cb 89, Pilgrim.
Smith, John Gardner, mc Alabama 89, cb Lamar 89, Bankston.
Seay, Mark Rollins, Old Law 79, cb Lamar 86, Berry Station.
Young, James Dopsie, mc Memphis Hospital 84, cb Lamar 94, Fayette.

Total, 11.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Lane, Jesse Washington, mc Vanderbilt 86, cb Walker 86, New River.
Martin, Thos. Hix, Old Law, cb Cleburne —, Ballard.

Total, 2.

Moved into the county—James Lucien Batson, from Jefferson county to ————; Wm. Wallace Duncan, from Pickens county to Berry.

Moved out of the county—James Lucien Batson, to Jefferson county; Wm. Wallace Duncan, from Berry to Pratt City, Jefferson county; Thos. M. Peters, from Fayette to Birmingham.

Examinations—James Lucien Batson, mc Vanderbilt 1900, certificate granted; Wm. Wallace Duncan, mc Birmingham, 1900, certificate granted; Tarley William Jones, mc Vanderbilt 1900, certificate granted.

*FRANKLIN COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President, J. M. Clark; Vice-President, W. W. White; Secretary, W. J. Clark; Treasurer, W. J. Clark; Health Officer, L. W. Desprez. Censors—L. W. Desprez, N. T. Underwood, J. A. Trimble, O. Sargent, E. M. Harris.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barnes, Thomas Benton, mc Memphis 74, cb 88, Darlington.
Clarke, John King, Sr., mc univ Nashville 58, cb 88, Russellville.
Clarke, John King, Jr., mc univ Vanderbilt 84, cb 88, Belgreen.
Clark, John McWhorter, mc univ Louisville 50, cb Lawrence 88, Russellville.

Clark, William Josiah, mc Birmingham 96, cb 96, Russellville.
Cleere, William Washington, mc univ Nashville 82, cb 88, Belgreen.
Desprez, Louis Willoughby, mc Alabama 71, cb 88, Russellville.
Harris, Elijah McCulloch, mc univ Vanderbilt 87, cb 87, Russellville.
Hughes, ——, mc ———, cb ———, Pleasant Site.
Jones, Thomas Speck, mc univ Vanderbilt 78, cb 88, Russellville.
Lee, ——, mc ———, cb ———, Red Bay.
Nance, James W., mc Baltimore 94, cb —, Russellville.
Sargent, Oscar, mc univ Vanderbilt 80, cb 88, Darlington.
Trimble, Joseph Adison, mc Vanderbilt 81, cb —, Russellville.
Underwood, Nimrod Terrell, mc Alabama 86, cb 88, Russellville.
White, William Wyatt, mc s of m Kentucky 85, cb Marion 85, Newburg.
White, Robert Josiah, mc Louisville 54, cb 88, Burleson.
Total, 17.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Sevier, Daniel Vertner, mc —, cb —, Russellville.
Total, 1.

*NOTE—As no report has been received from Franklin county this year, the report for 1900 is here reproduced.

GENEVA COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

President, A. B. Jernigan; Vice-President, J. N. Clements; Secretary, C. B. McKinnon; Treasurer, C. B. McKinnon; Health Officer, E. Y. Malone. Censors—M. F. Fleming, R. L. Justice, C. B. McKinnon, E. Y. Malone, J. C. Fleming.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ard, James Henry, mc Alabama 88, cb 88, Geneva.
Belcher, William Ree, mc Kentucky s of m 91, cb Dale 91, Hartford.
Campbell, Terrell Taylor, mc Atlanta 83, cb Dale 87, Hartford.
Chalker, William Pounce, mc Georgia Eclectic 97, cb 97, Sanders.
Chapman, Abner Richard, mc univ Vanderbilt 88, cb Coffee 88, Geneva.
Chapman, William Hickerman, mc Alabama 73, cb Coffee 88, Geneva.
Clements, John N., mc Jefferson 56, cb 88, Flat.
Cox, William, mc ——— —, cb 88, Dundee.
Douglass, Silas William, ng, cb Escambia 87, Eunola.
Fleming, John Clifton, mc Alabama 91, cb 95, Hartford.
Fleming, Milliard Filmore, mc Louisville —, cb 88, Geneva.
Jay, John D., mc ——— —, Pro forma certificate, Elton.

Jernigan, Alpheus Baker, mc ——— —, cb 88, Geneva.
Justice, Robert Lee, mc Alabama 94, cb Pike 94, Geneva.
Malone, Eugene Yewell, mc Alabama 92, cb Escambia 92, Geneva.
McKinnon, Charles Braxton, mc Tulane 92, cb 1900, Geneva.
Rivenbark, Jackson John, mc Georgia Eclectic 97, cb Dale 97, Hartford.
Rivenbark, Oscar Lee, mc Georgia Eclectic 93, cb 1900, High Note.
Shute, Joseph V., mc ——— —, cb 88, Lupton.
Smith, Gordon Wright, mc Louisville 92, cb 92, Big Creek.
Treadwell, Hardy P., mc Georgia Eclectic 93, cb 88, Geneva.
Ward, Thomas Jefferson, mc ——— —, cb 88, Watford.
Total, 22.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Johnston, John, illegal, Flat.
Ramsay, Walter Dekel, ng, illegal, Whittaker.
Robertson, J. B., illegal, Sanders.
Smith, William W., illegal, Coffee Springs.
Smith, Dave, illegal, Sanders.
Total, 5.

Moved into the county—C. B. McKinnon, from Pensacola, Fla., to Geneva; T. T. Campbell, from Echo, Dale county, to Hartford; William Ree Belcher, from Daleville, Dale county, to Hartford.

Moved out of the county—George H. Blackshear, from Dundee to Gordon, Henry county; John H. Holly, from Marl to Opp, Covington county; William A. Hooten, from Hartford to ———; Charles B. Powell, from Sanders to Pansey, Henry county.

Examinations—Charles Braxton McKinnon, mc Tulane 1892, certificate granted; Charles Bob Powell, mc Alabama 1900, certificate granted; Oscar Lee Rivenbark, mc Georgia Eclectic 93, certificate granted; W. W. Smith, certificate refused.

*GREENE COUNTY MEDICAL SOCIETY—Selma, 1878.

OFFICERS.

President, J. P. Barclay; Vice-President, A. H. Byrd; Secretary, W. R. Hatter; Treasurer, W. R. Hatter; Health Officer, ———. Censors—A. M. Duncan, R. D. Lucius, S. S. Murphy, D. O. McGhee, A. P. Smith.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barclay, James Paxton, mc univ New York 71, cb 79, Eutaw.
Byrd, Alexander Hamilton, mc univ New York 69, cb 80, Eutaw.

Duncan, Augustus Meek, mc Alabama 74, cb 79, West Greene.
Gunter, John Leon, mc Memphis 94, cb Pickens 95, Eutaw.
Harkness, William Baskin, mc Alabama 97, cb 97, Boligee.
Hatter, William Reuben, mc univ Tulane 89, cb 89, Boligee.
Hagler, John Wiley, mc Alabama 94, cb Tuscaloosa 94, Clinton.
Legare, Julius Kenneth, mc univ New York 86, cb 87, Forkland.
Lucius, Richard DeKalb, mc Alabama 71, cb Tuscaloosa 78, Eutaw.
McGehee, Dabney Oswell, mc Alabama 72, cb 79, Eutaw.
Moore, George Augustus, mc Alabama 90, cb 90, Clinton.
Murphy, Samuel Silenus, mc Alabama 81, cb 84, Pleasant Ridge.
Pierce, Thomas William, mc univ Virginia 75, cb 79, Knoxville.
Smith, Armand Pfister, mc s of m Kentucky 75, cb 79, Eutaw.
Smith, John Alexander, mc Atlanta 58, cb 79, Union.
Snoody, Virgil, mc Alabama 73, cb 79, Knoxville.
Total, 16.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Morgan, Isaac DuBose, mc univ Pennsylvania 58, cb 79, Eutaw.
Mobley, W. A., mc Alabama —, cb —, West Greene.
Pearson, Edward Pallen, mc univ Louisville 73, cb 84, McAlpine.
Purnell, James Knox, mc ——— —, cb Pickens 88, Lewiston.
Snoddy, Samuel, mc univ Transylvania 31, cb 79, Mantua.
Total, 5.

*NOTE—As no report has been received from Greene county this year, the report of 1900 is here reproduced.

HALE COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

President, M. W. Leonard; Vice-President, H. T. Young; Secretary, H. G. Perry; Treasurer, H. G. Perry; Health Officer, Jacob Huggins. Censors—E. P. McCollum, Jacob Huggins, R. H. Duggar, H. G. Perry, J. P. Borden.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, Thomas Pinnic, mc Memphis Hospital 99, cb 99, Havana.
Borden, James Pennington, mc Southern 75, cb 78, Greensboro.
Davis, Andrew Rufus, mc Atlanta 90, cb 90, Five Mile.
Driver, Elisha Newton, mc Louisiana 93, cb 93, Newbern.
Duggar, Reuben Henry, mc Pennsylvania 58, cb 78, Gallion.
Gewen, Wm. Christopher, mc univ Louisiana 78, cb 78, Akron.
Griffin, Rufus Jackson, mc Alabama 90, cb 90, Moundville.
Huggins, Jacob, mc Pennsylvania 60, cb 78, Newbern.
Leonard, Madison Waldo, mc Alabama 94, cb 94, Cedarville.

McCollum, Edgar Patton, mc Alabama 93, cb Perry 93, Greensboro.
McGehee, John Webb, mc Tulane 1900, cb 1900, Greensboro.
Otts, Mark Christleab, mc Alabama 1900, cb 1900, Greensboro.
Perry, Henry Gaither, mc Georgia Reform 88, cb Butler 88, Greensboro.
Spencer, George M., ng (Old Law), cb Tuscaloosa 78, Brush Creek.
Thurmond, Wm. H., mc Southern 86, cb Tuscaloosa 96, Moundville.
Tidmore, Dodson Wright, mc unic of South 99, cb 99, Phipps.
Young, Henry Tutwiler, mc univ of South 99, cb 99, Greensboro
Total, 17.

Honorary Members

Downey, Wm. Thomas, Old Law, cb 70, Scotts.
Webb, Louis DeYampert, univ New York 69, cb 78, Greensboro.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carson, Shelby Chadwick, mc Tulane 74, cb Greene 79, Greensboro.
Harris, John Reed, mc Memphis 96, cb Jefferson 96, Greensboro.
Total, 2.

Moved into the county—J. W. McGehee, from New Orleans, La., to Greensboro; J. R. Harris, from Waxohachee, Texas, to Greensboro; W. H. Thurmond, from Duncanville, Tuscaloosa county, to Moundville.

Moved out of the county—L. W. McGruder, from Greensboro to Mississippi; J. U. Ray, Jr., from Greensboro to Woodstock, Bibb county; John H. Owens, to Scottsville, Bibb county; Wm. H. Coleman (col'd.), from Greensboro to Gadsden, Etowah county.

Examinations—Wm. H. Coleman, (col'd.), Meharry 1900, certificate refused; M. C. Otts, mc Alabama 1900, certificate granted; L. S. Brown, mc Alabama 1900, certificate granted; J. Webb McGehee, mc Tulane 1900, certificate granted; Wm. S. Anderson, mc Tulane 1900, certificate granted.

Deaths—T. F. Moore, Stewarts, died Dec., 1900 of acute dysentery; J. A. Tidmore, Havana, pneumonia, Nov., 1900.

HENRY COUNTY MEDICAL SOCIETY—Birmingham, 1883.

OFFICERS.

President, W. M. Ryals; Vice-President, G. A. Hammond; Secretary, Henry Green; Treasurer, H. P. Calhoun; Health Officer, W. M. Ryals. Censors—G. A. Hammond, J. R. G. Howell, S. O. Carlisle, W. J. Lee, J. H. Stovall.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Atkeson, Clarence Lee Crawford, mc Phys. and Surg. Baltimore 84, cb Lee 86, Columbia.
Burdeshaw, Lee Roy, mc Chattanooga 99, cb 99, Headland.
Calhoun, Henry Paulden, mc Atlanta 95, cb 95, Cottonwood.
Carlisle, Samuel Oscar, mc Vanderbilt 94, cb Pike 94, Dothan.
Davie, Mercer Stillwell, mc Tulane 99, cb Bibb 99, Dothan.
Ellis, James Lewis, mc Memphis Hospital 86, cb Dale 86, Dothan.
Fowler, James Thomas, mc South Carolina 81, cb 81, Shorterville.
Green, Henry, mc Alabama 92, cb Conecuh 92, Dothan.
Hammond, George Abner, mc Phys. and Surg. Baltimore 84, cb 84, Dothan.
Hardwick, William Pleasant, mc Alabama 67, cb 88, Headland.
Hendrix, Leonidas, mc Atlanta 90, cb Pike 90, Abbeville.
Howell, John Robert Graves, mc Atlanta 90, cb Dale 88, Dothan.
Lee, William Joseph, mc univ Louisiana 60, cb 83, Abbeville.
Long, James Benjamin, mc Louisville 81, cb 83, Abbeville.
Nichols, Lucius Sherman, mc Alabama 97, cb 97, Abbeville.
Payne, John Walter, mc Alabama 86, cb 87, Dothan.
Phillips, Bernard, mc Heidelberg Germany 74, cb 91, Dothan.
Ryals, William M., mc Atlanta 87, cb 95, Cowarts.
Stovall, John Henry, mc Atlanta 60, cb 89, Columbia.
Steagall, Wm. Collingsworth, mc South Carolina 60, cb 87, Abbeville.
Steagall, Albert Sidney, mc Alabama 88, cb Dale 87, Abbeville.
Vaughn, David Horatio, mc Atlanta 88, cb 89, Gordon.
Williams, Wm. Henry, mc Memphis Hospital 89, cb 89, Dothan.

Total, 23.

Honorary Member.

Lee, Joseph Edward, mc Atlanta 95, cb 97, Waycross, Ga.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Blackledge, John Richard, mc Alabama 89, cb 91, Abbeville.
Blackshear, Randall Davis, mc Kentucky s of m 92, cb Dale 94, Dothan.
Chalker, B. C., mc Eclectic —, (illegal), Cottonwood.
Fowler, John Lindsey, mc South Carolina 51, cb 83, Shorterville.
Fillingim, W. H., ng, (illegal), Ashford.
Hill, Amon S., mc Atlanta (illegal), Granger.
Kennedy, Thomas Joseph, mc univ of South 99, cb 1900, Gordon.
Lewis, James Langdon, mc Atlanta 84, cb 85, Bush.
McElvin, Pleas., ng, (illegal), Ashford.
McElvin, — —, ng, (illegal), Lawrenceville.

Oates, Wyatt Stephen, mc ——— —, cb 91, Headland.
Pate, Walter Eugene, mc Atlanta 93, cb 95, Ashford.
Stokes, James Eldridge, mc Georgia Eclectic 92, cb 97, Kinsey.
Sporman, Charles F., mc Alabama 87, cb 89, Headland.
Vann, James Robert, mc Alabama 99, cb 1900, Haleburg.
Weems, William S., mc Alabama 92, (illegal), Lawrenceville.
Young, Harry Monroe, mc Alabama 93, cb 93, Dothan.
Yarborough, Jno. T., mc Atlanta 92, cb 92, Columbia.
Total, 18.

Moved into the county—Henry Green, from Bolling, Butler county, to Dothan; J. W. Payne, from Live Oak, Florida, to Dothan; R. D. Blackshear, from Gadsden, Etowah county, to Dothan.

Moved out of the county—J. E. Lee, from Gordon to Waycross, Georgia.

Examinations—J. R. Vann, certificate granted; T. J. Kennedy, certificate granted.

Deaths—F. I. Moody, Dothan, pneumonia.

JACKSON COUNTY MEDICAL SOCIETY—Mobile, 1882.

OFFICERS.

President, J. W. Knowlton; Vice-President, W. C. Maples; Secretary, J. P. Rorex; Treasurer, J. P. Rorex; Health Officer, J. W. Knowlton. Censors—G. W. Foster, W. C. Maples, J. W. Knowlton, E. R. Smith, T. E. Callan.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Blakemore, Andrew Newton, mc univ Tennessee 80, cb 82, Larkinsville.
Boggess, John Wilson, mc Vanderbilt 92, cb Marshall 93, Woodville.
Callan, Thomas Edward, mc Alabama 94, cb 94, Scottsboro.
Foster, George Whitfield, mc univ Nashville 82, cb 82, Stevenson.
Knowlton, James Wiley, mc univ Vanderbilt 83, cb 83, Paint Rock.
Maples, William Caswell, mc univ Tennessee 81, cb Madison 81, Scottsboro.
McLendon, William LaFayette, mc Alabama 96, cb 96, Hollywood.
Rorex, James Polk, mc Alabama 75, cb 82, Scottsboro.
Sanders, Walter Constantine, mc Memphis Hospital 91, cb Madison 91, Stevenson.
Smith, Eugene Robinett, mc univ Vanderbilt 85, cb 89, Dutton.
Total, 10.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adkins, Charles William, mc Louisville 68, cb 84, Langston.
Bogart, William, mc univ Vanderbilt 1900, cb 1900, Stevenson.
Boyd, Andrew, mc Phys. and Surg. Baltimore 88, cb 88, Scottsboro.
Boyd, Hugh, mc Memphis 99, cb 1900, Scottsboro.
Brewer, Joseph M., mc univ Vanderbilt 82, cb 82, Trenton.
Gattis, Henry Franklin, ng, cb 82, Holly Tree.
Grant, Felix, ng, cb 82, Larkins.
Haralson, Jefferson B., mc Memphis 87, cb DeKalb 88, Langston.
James, William, mc univ Vanderbilt 82, cb 90, Bolivar.
Johnson, James Robert, ng, cb DeKalb 82, Kirby's Creek.
Lee, Elisha L., mc univ Vanderbilt 73, cb 82, Bridgeport.
McCord, John Harvey, ng, cb 82, Section.
Prince, Jesse Lee, mc Alabama 99, cb 99, Coffey's Store.
Reid, James R., mc Alabama 93, cb 93, Estills.
Smith, Barton Brown, Sr., mc Nashville 67, cb 83, Larkinsville.
Smith, William Barton, ng, cb 82, Aspel.
Spiller, William Kingston, mc Louisville 74, cb 84, Bridgeport.
Tate, George T., mc univ Vandervilt 95, cb Marshall 96, Wainsville.
Zurmehley, William, mc univ Vanderbilt 1900, cb 1900, Stevenson.

Total, 19.

Moved out of the county—James Ned Buchanan, from Scottsboro to Cullman; Emmet K. Moon, from Hollywood to Anniston.

Examinations—William Bogart, certificate granted; Eugene R. Smith, Jr., certificate granted; William Earl Noel, certificate granted; W. R. McRee, certificate refused; Hugh C. McRee, certificate refused.

Deaths—T. H. Helton, of pneumonia, Caffey's Store; Green Pryor McAfee, Lim Rock.

JEFFERSON COUNTY MEDICAL SOCIETY—Birmingham, 1887.

OFFICERS.

President, W. E. B. Davis; Vice-President, H. L. Martin; Secretary, E. A. Jones; Treasurer, R. V. Mobley; Health Officer, J. M. Mason. Censors.—E. H. Sholl, C. Wilson, L. G. Woodson, E. P. Riggs, A. T. Henley.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, Jones Cadwalader, mc univ Louisville 59, cb Marengo 78, Birmingham.
Alexander, Harvard Augustus, mc s of m Kentucky 75, cb Macon 78, Birmingham.
Baker. Dicia Houston, mc Women's Memorial Cincinnati 98, cb 99, Birmingham.

Bandy, E. C., mc Montezuma 98, cb Bibb 98, Bessemer.

Bankston, Richard Coopender, mc univ Tulane 88, cb 96, Birmingham.

Barclay, John Wyeth, mc Jefferson 69, cb Madison 78, Birmingham.

Barnett, Thomas Meriwether, mc univ Vanderbilt 99, cb Chilton 99, Birmingham.

Barrett, Nathaniel Aldridge, mc univ Vanderbilt 86, cb Lauderdale 86, East Lake.

Berry, Albert Alford, mc univ Virginia 82, cb 85, Birmingham.

Brown, George Summers, mc Jefferson 85, cb 87, Birmingham.

Brown, George Washington, mc Atlanta 77, cb 78, Pratt City.

Brown, Thomas Jefferson, mc univ Virvinia 85, cb 85, Pratt City. Birmingham.

Brown, Quarles Jemison, mc Alabama 1900, cb Hale 1900, Birmingham.

Caffee, Samuel Richardson, mc univ Missouri 81, cb Tuscaloosa 81, Avondale.

Clark, Nathaniel Guido, mc Birmingham 98, cb 98, Ensley.

Collins, Milton Homer, mc univ Tennessee 84, cb 84, North Birmingham.

Compton, Felix Henry, mc univ Vanderbilt 81, cb Madison 97, Birmingham.

Copeland, Benjamin Grigsby, mc Jefferson 83, cb Limestone 83, Birmingham.

Coston, Hamilton Ralls, mc univ Washington, Baltimore 72, cb 90, Birmingham.

Cotton, Robert, mc univ Tulane 67, cb 86, Birmingham.

Coulbourne, Joseph Thomas, mc univ Maryland 86, State Board 86, Birmingham.

Crowe, Philip Patterson, mc univ Nashville 77, cb St. Clair 78, Brookside.

Cunningham, Russell McWhorter, mc Bellevue 79, cb 83, Ensley.

Cunningham, Modie Ezra, mc Birmingham 1900, cb 1900, Ensley.

Dabney, John Davis, mc univ Washington, Baltimore 72, cb 90, Birmingham.

Davis, John Daniel Sinkler, mc Georgia 79, cb St. Clair 79, Birmingham.

Davis, Wm. Elias Browlee, mc Bellevue 89, cb 84, Birmingham.

Dedman, James Edwin, mc univ Tennessee 91, cb 98, Birmingham.

Donald, T. C., mc Alabama 99, ————.

Drennen, Charles, mc Alabama 72, cb Blount 78, Birmingham.

Drennen, David Edward, mc Alabama 94, cb 94, Birmingham.

Due, Malvern Nicholas, mc Phys. and Surg. New York 88, cb Montgomery 88, Birmingham.

Duncan, Joseph Johnston, mc univ Louisville 86, State Board 86, Birmingham.

Dunlap, Perry Gabriel, mc univ Vanderbilt 81, cb St. Clair 81, Adger.

Edwards, Joseph Henry, mc Birmingham 97, cb 97, Wylam.

Finch, J. H., mc Birmingham —, cb —, Avondale.

Fox, Care Alexander, mc univ Tulane 1900, cb 1900, Birmingham.

Fox, Bertram Arthur, mc Birmingham 96, cb 96, Birmingham.

Gibson, Jefferson Demetrius, mc Alabama 87, cb Tuscaloosa 87, Birmingham.

Glass, Edward Taylor, mc univ Vanderbilt 90, cb 90, Birmingham.

Harkness, Robert Baskin, mc univ Tulane 97, cb Tuscaloosa 97, New Castle.

Hamrick, Robert Hampton, mc Atlanta 95, cb Blount 96, Pratt City.

Harwell, James Thomas, mc Atlanta Southern 83, cb Cullman 83, Ishkooda.

Hawkins, Richard Nathaniel, mc Miama, Ohio 67, cb Shelby 87, Birmingham.

Heacock, Joseph Davis, mc univ Tulane 92, cb Talladega 92, Woodlawn.

Heard, George Phillip, mc Phys. and Surg. New York 94, cb 1900, Birmingham.

Heflin, Howard Towles, mc univ Maryland 93, cb Clay 94, Birmingham.

Heflin, Wyatt, mc Jefferson 84, cb Randolph 85, Birmingham.

Hendon, W. T., mc ——— —, cb —, Ensley.

Henley, Albert Thomas, mc univ New York 69, cb Hale 78, Birmingham.

Hix, Nicholas Flood, mc univ Virginia 1900, cb 1900, Gate City.

Hogan, George Archibald, mc Birmingham 96, cb 96, Johns.

Howard, John Wesley, mc Atlanta 91, cb Shelby 91, Irondale.

Jenkins, Luckie Andrew, mc Alabama 89, cb Wilcox 89, Cardiff.

Jernigan, Charles Henry, mc Jefferson 55, cb Bullock 80, Birmingham.

Johnston, Hardee, mc univ Virginia 95, cb 96, Birmingham.

Jones, Capers Capehart, mc univ m of s Philadelphia 70, cb Wilcox 79, East Lake.

Jones, Devotie Dennis, mc univ Maryland 72, cb Lowndes 72, Woodlawn.

Jones, Edgar Allen, mc Birmingham 98, cb 98, Birmingham.

Jones, Robert Arthur, mc Louisville 86, cb 86, Birmingham.

Jordon, William Mudd, mc Phys. and Surg. New York 95, cb 95, Birmingham.

Killough, James Monroe, mc s of m Kentucky 87, cb 87, Huffman.

Klebs, Theodore Alexander, mc Tulane 76, cb 87, Birmingham.

Lacey, Edward Parish, mc univ Vanderbilt 83, cb Shelby 83, Bessemer.

Ledbetter, Samuel Leonidas, mc Louisville 79, cb 79, Birmingham.

LeGrand, John Clarke, mc Atlanta 80, cb 81, Birmingham.

Lewis, Francis Porcher, mc South Carolina 76, cb 80, Coalburg.

Luckie, James Buckner, mc Pennsylvania 55, cb 78, Birmingham.

Lupton, Frank Allemong, mc Johns Hopkins 99, cb 1900, Birmingham.

Martin, Henry Lewis, mc univ Vanderbilt 81, cb Madison 81, Avondale.

Mason, James Monroe, Jr., mc Tulane 97, cb 99, Birmingham.

McAdory, Wellington Prude, mc univ Virginia 97, cb 99, Birmingham.

McCarty, James Henry, mc Atlanta 80, cb 83, Birmingham.

Mobley, Robert Vernon, mc Alabama 89, cb Clarke 89, Birmingham.

Moore, John Austin, mc Phys. and Surg. Baltimore 85, cb Blount 85, Birmingham.

Morris, Edward Watts, mc univ Virginia 85, cb 87, Birmingham.

Odom, J. J., ——— —, cb ——— —, Littleton.

Parke, Thomas Duke, mc univ New York 79, cb Dallas 84, Birmingham.

Payne, John, mc Jefferson 86, cb Shelby 86, Millman.

Peters, Thomas Marion, mc Alabama 90, cb Fayette 90, Birmingham.

Peters, Urban Joseph Whitehead, univ Pennsylvania 98, cb 1900, Birmingham.

Pittman, John Greene, mc Phys. and Surg. New York, 1900, cb 1900, Birmingham.

Pressley, Henry Erskine, mc univ New York 99, cb 99, Birmingham.

Prince, Francis Marion, mc Jefferson 49, cb 78, Bessemer.

Ransom, William Walter, mc univ Vanderbilt 88, cb 88, Birmingham.

Riggs, Edward Powell, mc Phys. and Surg. Baltimore 81, cb Dallas 81, Birmingham.

Rittenberry, Baxter, mc Birmingham 99, cb 99, Birmingham.

Robbins, Jesse Elbert, mc Atlanta 86, cb 86, Brookside.

Robertson Thaddeus Lindley, mc Jefferson 61, cb Calhoun 81, Birmingham.

Robinson, Elisha Milton, mc univ Tulane 85, cb Blount 86, Birmingham.

Robinson, Thomas Franklin,m c univ Nashville 80, cb Blount 80, Bessemer.

Rogers, Mack, mc Alabama 89, cb Conecuh 89, Birmingham.

Rosser, Henry Nollner, mc Atlanta 69, cb Dallas 79, Birmingham.

Duncan, Joseph Johnston, mc univ Louisville 86, State Board 86, Birmingham.

Dunlap, Perry Gabriel, mc univ Vanderbilt 81, cb St. Clair 81, Adger.

Edwards, Joseph Henry, mc Birmingham 97, cb 97, Wylam.

Finch, J. H., mc Birmingham —, cb —, Avondale.

Fox, Care Alexander, mc univ Tulane 1900, cb 1900, Birmingham.

Fox, Bertram Arthur, mc Birmingham 96, cb 96, Birmingham.

Gibson, Jefferson Demetrius, mc Alabama 87, cb Tuscaloosa 87, Birmingham.

Glass, Edward Taylor, mc univ Vanderbilt 90, cb 90, Birmingham.

Harkness, Robert Baskin, mc univ Tulane 97, cb Tuscaloosa 97, New Castle.

Hamrick, Robert Hampton, mc Atlanta 95, cb Blount 96, Pratt City.

Harwell, James Thomas, mc Atlanta Southern 83, cb Cullman 83, Ishkooda.

Hawkins, Richard Nathaniel, mc Miama, Ohio 67, cb Shelby 87, Birmingham.

Heacock, Joseph Davis, mc univ Tulane 92, cb Talladega 92, Woodlawn.

Heard, George Phillip, mc Phys. and Surg. New York 94, cb 1900, Birmingham.

Heflin, Howard Towles, mc univ Maryland 93, cb Clay 94, Birmingham.

Heflin, Wyatt, mc Jefferson 84, cb Randolph 85, Birmingham.

Hendon, W. T., mc ——— —, cb —, Ensley.

Henley, Albert Thomas, mc univ New York 69, cb Hale 78, Birmingham.

Hix, Nicholas Flood, mc univ Virginia 1900, cb 1900, Gate City.

Hogan, George Archibald, mc Birmingham 96, cb 96, Johns.

Howard, John Wesley, mc Atlanta 91, cb Shelby 91, Irondale.

Jenkins, Luckie Andrew, mc Alabama 89, cb Wilcox 89, Cardiff.

Jernigan, Charles Henry, mc Jefferson 55, cb Bullock 80, Birmingham.

Johnston, Hardee, mc univ Virginia 95, cb 96, Birmingham.

Jones, Capers Capehart, mc univ m of s Philadelphia 70, cb Wilcox 79, East Lake.

Jones, Devotie Dennis, mc univ Maryland 72, cb Lowndes 72, Woodlawn.

Jones, Edgar Allen, mc Birmingham 98, cb 98, Birmingham.

Jones, Robert Arthur, mc Louisville 86, cb 86, Birmingham.

Jordon, William Mudd, mc Phys. and Surg. New York 95, cb 95, Birmingham.

Killough, James Monroe, mc s of m Kentucky 87, cb 87, Huffman.

Klebs, Theodore Alexander, mc Tulane 76, cb 87, Birmingham.

Lacey, Edward Parish, mc univ Vanderbilt 83, cb Shelby 83, Bessemer.

Ledbetter, Samuel Leonidas, mc Louisville 79, cb 79, Birmingham.

LeGrand, John Clarke, mc Atlanta 80, cb 81, Birmingham.

Lewis, Francis Porcher, mc South Carolina 76, cb 80, Coalburg.

Luckie, James Buckner, mc Pennsylvania 55, cb 78, Birmingham.

Lupton, Frank Allemong, mc Johns Hopkins 99, cb 1900, Birmingham.

Martin, Henry Lewis, mc univ Vanderbilt 81, cb Madison 81, Avondale.

Mason, James Monroe, Jr., mc Tulane 97, cb 99, Birmingham.

McAdory, Wellington Prude, mc univ Virginia 97, cb 99, Birmingham.

McCarty, James Henry, mc Atlanta 80, cb 83, Birmingham.

Mobley, Robert Vernon, mc Alabama 89, cb Clarke 89, Birmingham.

Moore, John Austin, mc Phys. and Surg. Baltimore 85, cb Blount 85, Birmingham.

Morris, Edward Watts, mc univ Virginia 85, cb 87, Birmingham.

Odom, J. J., ——— —, cb ——— —, Littleton.

Parke, Thomas Duke, mc univ New York 79, cb Dallas 84, Birmingham.

Payne, John, mc Jefferson 86, cb Shelby 86, Millman.

Peters, Thomas Marion, mc Alabama 90, cb Fayette 90, Birmingham.

Peters, Urban Joseph Whitehead, univ Pennsylvania 98, cb 1900, Birmingham.

Pittman, John Greene, mc Phys. and Surg. New York, 1900, cb 1900, Birmingham.

Pressley, Henry Erskine, mc univ New York 99, cb 99, Birmingham.

Prince, Francis Marion, mc Jefferson 49, cb 78, Bessemer.

Ransom, William Walter, mc univ Vanderbilt 88, cb 88, Birmingham.

Riggs, Edward Powell, mc Phys. and Surg. Baltimore 81, cb Dallas 81, Birmingham.

Rittenberry, Baxter, mc Birmingham 99, cb 99, Birmingham.

Robbins, Jesse Elbert, mc Atlanta 86, cb 86, Brookside.

Robertson Thaddeus Lindley, mc Jefferson 61, cb Calhoun 81, Birmingham.

Robinson, Elisha Milton, mc univ Tulane 85, cb Blount 86, Birmingham.

Robinson, Thomas Franklin,m c univ Nashville 80, cb Blount 80, Bessemer.

Rogers, Mack, mc Alabama 89, cb Conecuh 89, Birmingham.

Rosser, Henry Nollner, mc Atlanta 69, cb Dallas 79, Birmingham.

Rountree, Walter Scott, mc Birmingham 1900, cb Morgan 1900, Wylam.

Sanders, A. J., ——— —, cb —, Leeds.

Sellers, Ira Jackson, mc univ Vanderbilt 97, cb 97, Avondale.

Sexton, Charles Richard, mc univ Tulane 75, cb Tuscaloosa 78, Birmingham.

Shoemaker, Worcester Ney, mc Columbus 78, cb 81, Birmingham.

Sholl, Edward Henry, mc Pennsylvania 56, cb Sumter 78, Birmingham.

Steves, Henry Fordyce, ng State Board 87, Gate City.

Stubbs, George Hamilton, mc Atlanta Southern 95, cb 97, Birmingham.

Talley, Dyer Findley, mc univ Tulane 92, cb 92, Birmingham.

Torrance, Gaston, univ Virginia 97, cb 1900, Birmingham.

Waller, George D., ——— —, cb ——— —, Bessemer.

Walton, Frank, mc univ Vanderbilt 99, State Board 99, Blossburg.

Ward, Henry Silas, mc univ Nashville 98, cb Blount 99, Birmingham.

Warwick, Andrew Sitlington, mc univ New York 92, cb 1901, Birmingham.

Wetherbee, Joseph Robbins, mc Jefferson 1900, cb 1900, Thomas.

Whaley, Lewis, mc Atlanta 73, cb Blount 78, Birmingham.

Whelan, Charles, mc Alabama 96, cb 96, Birmingham.

Wikle, Luther Lafayette, mc univ Tennessee 88, cb 88, Village Springs.

Wilder, William Hinton, mc univ New York 91, cb 91, Birmingham.

Wilson, Cunningham, mc univ Pennslyvania 84, cb 84, Birmingham.

Wood, Winston Cass, mc Atlanta 81, cb 81, Bessemer.

Woodson, Lewis Greene, mc univ Maryland 86, cb 88, Birmingham.

Wyman, Benjamin Leonidas, mc univ New York 79, cb Tuscaloosa 82, Birmingham.

Worcester, John Locke, mc Birmingham 1900, cb 1900, Birmingham.

Yates, Carlyle Keyser, mc Baltimore 1900, cb Dallas 1900, Birmingham.

Total, 118.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Acton, William Henser, mc univ Vanderbilt 88, cb Lauderdale 88, Leeds.

Auxford, F. O., mc Alabama 95, cb —, Cardiff.

Ball, John Calhoun, mc Atlanta 59, cb Calhoun 87, Avondale.

Ballard, Asa Nathaniel, mc Pulte (Homeopathic) 76, cb DeKalb 86, Birmingham.

Black, W. F., mc ——— —, cb —, Sayreton.

Blanks. John Harrison, mc univ Tennessee 91 State Board 98, Birmingham.

Berry, James Crawford, mc South Carolina 95, cb 95, Oxmoor.

Benton, John M., mc univ Maryland 90, cb 97, Birmingham.

Brown, Arthur McKinnon (col.), mc univ Michigan 91, cb 91, Birmingham.

Burnum, Henry Clay, mc Phys. and Surg. Baltimore 92, cb Blount 92, Chalkville.

Byars, Henry Hayden, mc s of m Kentucky 92, cb Perry 92, Warrior.

Carter, James Watson, mc univ Nashville 74, cb Limestone 78, Bessemer.

Casey, Edgeworth Stephens, mc Birmingham 1900, cb 1900, Birmingham.

Chamblee, Zachariah Britton, mc Birmingham 1900, cb 1900, North Birmingham.

Chisolm, R. P., mc Alabama 99, cb —, Bessemer.

Clapp, Wm. Wesley, mc Cleveland (Homeopathic) 90, cb DeKalb 90, Birmingham.

Clayton, Benjamin Lawrence, mc univ Virginia 82, cb St. Clair 82, Ayers.

Clifton, ——— —, cb ——— —, Bessemer.

Cocciola, Luigi, mc Naples, Italy 83, cb Cullman 1900, Birmingham.

Collins, James Alexander, mc univ Louisville 91, cb Cullman 91, Warrior.

Cooper, W. D., ——— —, cb —, Birmingham.

Cross, Samuel Mardis, mc Georgia 50, cb 78, Woodlawn.

Cross, Thos. Winston, mc univ Nashville 87, cb 87, Bessemer.

Davidson, Jas. Francis, mc Alabama 87, cb 87, Birmingham.

Davis, Frederick Eustis, mc Birmingham 99, cb Shelby 99, Blossburg.

Douglass, A. G., mc——— —, cb —, Birmingham.

Dozier, Byron T., mc Barnes (St. Louis) 97, cb Elmore 1900, Birmingham.

Dozier, Oliver Thomas, mc Atlanta 74, cb 97, Birmingham.

Edmonson, E. L., mc ——— —, cb —, Woodlawn.

Edmonson, J. S., mc ——— —, cb —, Woodlawn.

Edwards, Robert Smith, mc Atlanta 71, cb 78, Trussville.

Ellis, George Washington, ng, cb 78, Morris.

Elsberry, John Payne, mc univ Virginia 60, cb Montgomery 84, Powderly.

Farley, A. J., mc ——— —, cb —, Hillman.

Fields, E. T., mc ——— —, cb —, Ensley.

Finley, W. M., mc ——— —, cb —, Platt.

Goin, John Burt (col.) mc Meharry 90, cb 90, Birmingham.
Green, Robert Smith, mc Atlanta 60, cb 78, Greene's Station.
Hancock, James Francis, mc Louisville 88, cb Walker 88, Toadvine.
Hardin, E. B., ——— —, cb —, Woodward.
Hausman, Frank, mc Alabama 93, cb Tuscaloosa 93, Warrior.
Hawkins, Elijah Alexis, mc Atlanta Southern 88, cb Walker 89, Partridge.
Hayes, Wm. Isaac, mc Atlanta Southern 85, cb Walker —, Powderly.
Heddleston, James L., mc South Carolina 55, cb Hale 87, Woodlawn.
Hickman, C. M., ——— —, cb —, Warrior.
Hill, Chas. Lowery, mc univ Tennessee 88, cb 88, Elliott.
Holloway, Young Edwin, mc Miama Ohio 72, cb Cullman 85, Birmingham.
Hood, W. A., ——— —, cb —, Clough.
Huey, J. Fred mc ——— —, cb —, Blossburg.
Hundley, J. T. (col.), mc ——— —, cb —, Birmingham.
Jones, John Columbus, mc Tulane 85, cb 88, Johns.
Kinnette, Jackson Flavius, mc Georgia Eclectic 92, cb Shelby 92, Brighton.
Knight, J. B., mc ——— —, cb —, Ezra.
Lathem, Luther Middleton, mc Alabama 92, cb Bibb 92, Ensley.
Lathem, Sinclair Nicholas, mc Birmingham 97, cb St. Clair 97, Birmingham.
Lewis, G. R., mc ——— —, cb —, Bessmer.
Lewis, James Marshall, mc univ Vanderbilt 87, cb 88, Birmingham.
Love, William Jones, mc Alabama 93, cb Morgan 93, Mt. Pinson.
Mason, Ulyses G. (col.), mc Meharry 95, cb 95, Birmingham.
May, W. L., mc ——— —, cb —, Sandusky.
May, Frank H., mc univ of South 99, cb Marion 99, Birmingham.
McClain, Fred Augustus, mc Louisville 94, cb 94, Wylam.
McGlathery, Fountain S., mc univ Vanderbilt 82, cb Morgan 82, Woodlawn.
Means, George Evins, mc univ Tulane 89, cb 94, Bessemer.
Miller, James M., mc Alabama 84, cb Walker 88, Blossburg.
Mitchell, R. L., mc ——— —, cb —, Laban.
Miles, Wm. Cowden, mc Birmingham 99, cb Limestone 1900, Dale.
Naff, J. M., mc ——— —, cb —, Republic.
Norton, H. F., mc ——— —, cb —, Leeds.
Oates, D. D., mc ——— —, cb —, Merkel.
Oliver, Wm. Marmaduke, mc Alabama 72, cb 78, Jonesboro.
Owen, William Marmaduke, (Old Law), cb 87, Jonesboro.
Pope, C. M., mc ——— —, cb —, Henry Ellen.
Ragsdale, Milton C., mc Georgia 78, cb 78, McCalla.

Roberts, Martin, Old Law ng, cb 80, Warrior.
Robertson, Jasper Bennett, mc univ Vanderbilt 69, cb St. Clair 78, Woodlawn.
Roper, Wm. Elliott, mc univ Louisville 83, cb Shelby 88, Belle Sumter.
Rosamond, Wm. Lucius, mc s of m Kentucky 91, cb Walker 91, Ensley.
Russell, Ralph Morgan, mc Bellevue 88, cb Etowah 89, Birmingham.
Scott, Joseph Newton, mc Alabama 87, cb 87, Birmingham.
Scott, Andrew L., mc Barnes (St. Louis) 96, cb 96, Birmingham.
Seay, James E., mc Bellevue Hospital 99, cb Lamar —, Pratt City.
Shaw, E. T., mc——— —, cb —, Blossburg.
Sheppard, Louis Watson, mc Phys. and Surg. Baltimore 85, cb St. Clair 89, Bessemer.
Sibley, B. D., mc Birmingham 98, cb —, Warrior.
Smith, Robert Lee, mc Louisville 91, cb —, Toadvine.
Spencer, Lucian Allen, mc Miami (O.) 85, cb 85, Bessemer.
Stagg, John Bell, mc univ Vanderbilt 85, cb Walker 85, Pratt City.
Statum, Job Nelson, mc Atlanta Southern 88, cb 88, Blossburg.
Trainer, Edward W., ng, —, cb Marshall 85, Pratt City.
Tubbs, James, mc Memphis 94, cb Walker 94, Bessemer.
Vines, J. B., mc ——— —, cb —, Short Creek.
Waldrop, R. W., mc Louisville 96, cb 97, Bessemer.
Waldrop, William, mc Memphis 99, State Board 99, Woodward.
Washington, S. S. H. (col.), mc univ Howard 86, cb 87, Birmingham.
Whissenant, Lewis D., ng, cb 78, Morris.
Wilkerson, Geo. H., (col.), mc Meharry 97, cb 97, Birmingham.
Williams, Jack W., mc Phys. and Surg. 82, cb Russell —, Birmingham.
Winters, Joseph Schofield, mc Louisville 90, cb 90, Bessemer.
Wooley, Albert Spann, mc Philadelphia 51, cb Dallas 84, Birmingham.
Total, 100.

Moved into the county—T. M. Peters, from Fayette county to Birmingham; G. M. Milner, from Bibb county to Birmingham; F. H. May, from Madison county to Birmingham.

Moved out of the county—W. T. Berry, from Birmingham to New York City; J. P. Hawkins, from Avondale to St. Clair county; J. W. Hirst, from Thomas to Philadelphia, Pa.; W. C. Williams, from North Birmingham to Shelby county; John W. Gamble, from Birmingham to Wetumpka; Samuel Perry, from Birmingham to Perry county; W. F. Oliver, from Woodlawn to ———.

Examinations—Frank A. Lupton, mc Johns Hopkins 99, certificate granted ;Edgeworth Stephens Casey, mc Birmingham 1900, certificate granted; John Locke Worcester, mc Birmingham 1900, certificate granted; Carl Alexander Fox, mc Tulane 1900, certificate granted; Joseph Robbins Wetherbee, mc Jefferson 1900, certificate granted; Harry Graham Sellers, mc Vanderbilt 1900, certificate refused; Zachariah Britton Chamblee, Birmingham 1900, certificate granted; Joseph Jefferson McElroy, mc Atlanta Med. 98, certificate refused; Modie Ezra Cunningham, mc Birmingham 1900, certificate granted; Urban Joseph Whitehead Peters, mc univ Pennsylvania 98, certificate granted; John Greene Pittman, mc Phys. and Surg. New York 1900, certificate granted; Nicholas Flood Hix, mc univ Virginia 1900, certificate granted; Gaston Torrance, mc univ Virginia 97, certificate granted; George Philip Heard, mc Phys. and Surg. New York 94, certificate granted; Charles Preston Eichelberger, mc univ Virginia 96, certificate refused; Hamilton Ralls Coston, mc Vanderbilt 89, certificate granted; Andrew Sitlington Warwick, mc univ New York 92, certificate granted; Rufus Crockett McGahey, mc Vanderbilt 78, certificate refused.

Deaths—Jno. G. Griggs, Oct. 21, 1900, apoplexy, Birmingham; George Clarence Chapman, killed by tornado, March 25, 1901, Birmingham.

LAMAR COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, B. E. Turner; Vice-President, W. L. Morton; Secretary, J. C. Buckelew; Treasurer, J. C. Buckelew; Health Officer, W. F. Elliott. Censors.—R. J. Redden, G. C. Burns, J. C. Buckelew, T. B. Woods.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Buckelew, Judge Crayton, mc univ Grant 98, cb 98, Sulligent.
Burns, George Caruthers, mc Ill. Health Univ. 96, cb 78, Vernon.
Elliott, William Farris, mc univ Louisville 57, cb 77, Malloy.
Hollis, Daniel Dixie, mc Phys. and Surg. Baltimore 84, cb 84, Sulligent.
Kennedy, John Oscar, mc Alabama 82, cb 82, Kennedy.
Morton, William Locke, mc univ Louisiana 74, cb 77, Vernon.
Redden, Robert James, mc Baltimore 77, cb 77, Sulligent.
Turner, Berry Eddley, mc Memphis Hospital 97, cb 97, Richard.
Woods, Thomas Bailey, mc univ Louisville 73, cb Fayette —, Bell.
Total, 9.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Armstrong, Warren, ng, cb 80, Detroit.
Barksdale, James Ira, mc Vanderbilt 72, cb Tuscaloosa 86, Fernbank.
Barrentine, Kelley Jason, mc Phys. and Surg. St. Louis 99, cb 1900, Millport.
Black, William Anderson, mc Memphis Hospital 92, cb Fayette 95, Cawoon.
Blakeney, Lewis Columbus, mc Alabama 73, cb 77, Millport.
Box, Daniel William, mc Alabama 85, cb 85, Vernon.
Bronyan, James A., mc univ Louisville 92, cb 92, Kingsville.
Buckelew, Ansel Milburn, mc univ Louisville 70, cb Calhoun 86, Sulligent.
Collier, Scott, ng, cb 77, Pharos.
Collins, Francis Alexander, mc Memphis Hospital 92, cb 92, Blowhorn.
Collins, George Jackson, mc Alabama 74, cb Fayette 84, Kennedy.
Horton, John Barkley, mc Memphis Hospital 95, cb 96, Kennedy.
Kennedy, William Henderson, mc univ Nashville 57, cb 77, Kennedy.
Owens, A. C., (illegal), Crews.
Patton, James Luther, mc Memphis Hospital 1900, cb Marion 1900, Detroit.
Vaughn, George Washington, mc Alabama —, cb Marion 88, Wofford.
Total, 16.

Moved into the county—J. L. Patton, from Marion county to Detroit.

Moved out of the county—Dick Cameron Morton, from Vernon to New Decatur, Morgan county.

Examinations—George Marvin Milner, mc Birmingham 1900, certificate granted; Arlando Berry Collins, Vanderbilt mc 1900, certificate granted.

LAUDERDALE COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President—W. M. Price; Vice-President, L. F. Duckett; Secretary, J. M. Peerson. Censors—C. M. Watson, C. A. Crow, L. W. Arnold, W. J. Kernochan, J. A. Pate.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Arnold, Leonard Warring, mc Ohio 77, cb 87, Florence.
Belew, John Columbus, ng, cb 90, Rogersville.
Boyd, P. S., (Homeopath), cb —, Florence.
Carroll, G. W., mc ——— —, cb —, Gravelly Springs.
Crow, Calvin Augustus, mc Jefferson 54, cb 78, Florence.

Duckett, John D., mc univ Vanderbilt 99, cb —, Florence.
Duckett, Levi Fowler, Jr., mc univ Tennessee 91, cb 94, Cloverdale.
Kennedy, Hiram Raleigh, mc univ Louisville 79, cb 81, Green Hill.
Kernochan, William Jones, mc univ Vanderbilt 79, cb 88, Florence.
Moody, Henry Altamont, mc univ Louisville 65, cb 87, Bailey Springs.
Pate, Jesse Americus, mc univ Louisville 70, cb 87, Rogersville.
Paulk, Samuel D., mc univ Vanderbilt 86, cb —, Florence.
Peerson, James M., mc univ Vanderbilt 91, cb 91, Florence.
Pitt, P. T., mc ——— —, cb —, Florence.
Powers, Alexander Hamilton, mc Louisville 71, cb —, Florence.
Price, William Mason, mc univ Nashville 64, cb 87, Florence.
Price, Perry Isaac, mc univ Vanderbilt 86, cb 87, Florence.
Scott, George Barbiere, mc Jefferson 90, cb 90, Florence.
Watson, Charles McAlpine, mc univ Louisiana 81, cb Greene 81, Florence.

Total, 19.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bramlet, William M., mc univ Nashville 60, cb 87, Florence.
Henderson, A. H., mc univ Nashville 76, cb 87, Florence.
Lee, J. W., mc ——— —, cb —, Waterloo.
Morris, J. C., mc ——— —, cb —, Threet.

Total, 4.

Examinations—Henry Lee Stutts, John Douglass, C. B. Diebold, B. J. Duckett, certificates granted.

Death—William Epps Hardaway, Florence.

LAWRENCE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, C. S. Chenault; Vice-President, E. T. Simms; Secretary, Wm. J. McMahon; Treasurer, Wm. J. McMahon; Health Officer, Wm. J. McMahon. Censors—H. B. Burkett, J. R. Howell, L. W. Houston, I. W. Fennell, F. D. Gibson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Burkett, Henry Bascomb, mc Phys. and Surg. New York 78, cb 78, Hillsboro.
Chenault, Charles Sidney, mc Birmingham 97, cb 97, Mt. Hope.
Edward, John Wilson, mc Louisville 69, cb 79, Courtland.
Etheredge, Benjamin Franklin, mc Memphis Hospital 86, cb 86, Town Creek.
Fennell, Isham Watkins, mc Nashville 67, cb Limestone 78, Courtland.

Gibson, Frank Demetrius, mc univ Nashville 90, cb 92, Moulton.
Greer, William Henry, mc Grant Chattanooga Tenn. 1900, cb Cleburne 1900, Courtland.
Houston Leonidas Walton, mc univ Nashville 77, cb 78, Town Creek.
Howell, John Robert, mc Memphis Hospital 88, cb 94, Hatton.
Irwin, Thomas Howard, mc Vanderbilt 1900, cb 1900, Moulton.
Masterson, John Thomas, mc m and s Pennsylvania cb 78, Moulton.
McDonald, John Robert, mc univ Nashville 67, cb Madison 78, Courtland.
McMahon, Wm. Jack, mc Long Island 60, New Orleans 61, cb Madison 78, Courtland.
Simms, Edgar Thomas, mc Pennsylvania 69, cb 78, Hillsborro.
Total, 14.

Moved into the county—William H. Greer, from Edwardsville, Cleburne county, to Courtland.

Moved out of the county—James R. Roberson, from Mt. Hope to ————; James T. Pitt, from Hillsboro to Florence, Lauderdale county.

Examinations—Thomas H. Irwin, mc Vanderbilt 1900, certificate granted.

LEE COUNTY MEDICAL SOCIETY—Huntsville, 1880.

OFFICERS.

President, A. H. Read; Vice-President, J. M. Watkins; Secretary, I. N. Stowe; Treasurer, I. N. Stowe; Health Officer, W. R. Weedon. Censors—A. H. Read, A. B. Bennett, J. G. Palmer, I. N. Stowe, W. B. Watkins.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bennett, Abijah B., mc Phys. and Surg. Baltimore 81, cb 81, Opelika.
Bedell, Robert Bruce, mc South Carolina 81, cb 81, Auburn.
Drake, John Hodges, Sr., mc Atlanta 67, cb 81, Auburn.
Palmer, Jesse Gary, mc Phys. and Surg. Baltimore 84, cb 84, Opelika.
Read, Andrew Hamil, mc Georgia 58, cb 81, Opelika.
Steadham, O. M., mc ——— —, cb —, Auburn.
Stowe, Isaac Noel, mc Georgia Eclectic 93, cb 95, Opelika.
Watkins, John Marion, mc Tulane 71, cb Tallapoosa 87, Opelika.
Watkins, Warren B., mc Bellevue Hospital 97, cb 98, Opelika.
Watkins, James Preston, mc Phys. and Surg. Baltimore 97, cb 97, Opelika.
Weedon, Walter R., mc Kentucky S of M 94, cb Barbour 94, Opelika.
Wheelis, James Raleigh, mc Atlanta —, cb —, Bullock.
Total, 12.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Floyd, Ashly, mc univ Louisiana 89, cb 95, Phoenix City.
Foreman, Arthur Levi, mc Jefferson 69, cb 81, Auburn.
Shelton, Menzo Davis, mc univ Nashville 69, cb 81, Salem.
Yarbrough, C. S., mc Atlanta 97, cb 97, Beulah.
Total, 4.

Moved into the county—James J. Peterson; R. D. Howe, from Elmore county, to ————.

Moved out of the county—Joseph R. Harmer, from Opelika to Army Post, S. C.; Jas. J. Peterson, from ———, to Mobile; Jos. M. Love, from ———— to LaFayette, Chambers county.

Death—Charles B. McCoy, Opelika.

LIMESTONE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, Theo. Westmoreland; Vice President, ————; Secretary, T. C. Jones; Treasurer, G. A. Williams; Health Officer, N. D. Richardson. Censors—W. J. Hagan, Theo. Westmoreland, T. C. Jones.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Crutcher, John Sims, mc univ Vanderbilt 89, cb 89, Athens.
Dupree, William James, mc univ Vanderbilt 76, cb 79, Westmoreland.
Hagan, William James, mc Jefferson 84, cb 84, Athens.
Hoffman, John Crittenden, mc Jefferson 58, cb 78, Athens.
Jones, Thomas Crittenden, mc univ Louisville 76, cb Chambers 88, Athens.
Moore, Elisha Dixon, (Old Law) 67, cb 78, Athens.
Pettus, Benton Sanders, mc univ Vanderbilt 92, cb 92, Pettusville.
Pettus, Joseph Albert, mc univ Nashville 67, cb 77, Elkmont.
Rankin, James Coffield Mitchell, mc univ Nashville 58, cb 78, Belle Mina.
Richardson, N. D.,mc Vanderbilt 91, cb 1900, Athens.
Westmoreland, Theophilus, mc univ Vanderbilt 56, cb 79, Athens.
Wilkinson, Milton Roil, mc univ Nashville 68, cb 78, Westmoreland.
Williams, George Allen, mc univ Nashville 80, cb 81, Elkmont.
Wilson, Felix Grundy, mc univ Nashville 65, cb 76, Elkmont.
York, Seaborn Edward, mc univ Louisville 78, cb 84, Athens.
Total, 15.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carter, James Jackson, mc ——— —, cb 78, Athens.
Collins, James Marshall, mc ——— —, cb 78, Athens.
Frierson, J. G., mc ——— —, cb —, Rowland.
Gaston, Alfred Langdon, mc univ Vanderbilt 91, cb 91, Gilbertsboro.
Hill, Henry Willis, mc univ New York 49, cb 77, Mooresville.
Hill, James W., mc univ Vanderbilt 84, cb 84, Mooresville.
Kyle, William Bailey, mc Alabama 89, cb 89, Lentzville.
Lindsey, Eugene C., mc univ Vanderbilt —, cb 1900, Mooresville.
Total, 8.

LOWNDES COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

President, W. B. Crum; Vice President N. G. James; Secretary, Frank Shackelford; Treasurer, Frank Shackelford; Health Officer, N. G. James. Censors—A. D. Coleman, W. P. Russell, W. B. Crum, M. H. Hagood, N. G. James.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bruner, Oliver Glenn, mc Alabama 89, cb 84, Ft. Deposit.
Carr, George Washington Lafayette, mc Pennsylvania 55, cb 78, Ft. Deposit.
Coleman, Aurelius Daniel, mc Alabama 80, cb 80, Mt. Willing.
Crum, William Barton, mc Alabama 88, cb 88, Ft. Deposit.
Gordon, Samuel A., mc Alabama 95, cb 95, Collerine.
Hagood, Middleton Howard, mc Alabama 98, cb 98, Mt. Willing.
James, Norman Gilchrist, mc Alabama 98, cb 98, Hayneville.
Middleton, Howard Hagood, mc Alabama 98, cb 98, Mt. Willing.
Marlette, Cyrus Edmund, mc Louisville 80, cb 91, Hayneville.
Powell, Clifton Woodruff, mc Alabama 91, cb 94, Letohatchie.
Powell, George Norman, mc Alabama 96, cb 97, Davenport.
Purifoy, Seaborn William, mc Kentucky s of m 94, cb Tuscaloosa 94, Lowndesboro.
Quillian, T. L., mc ——— —, cb —, Ft. Deposit.
Russell, William Payne, mc Atlanta 91, cb 91, Hayneville.
Shackelford, Frank, mc Alabama 98, cb 98, Letohatchie.
Weaver, William Calvin, mc univ Tennessee 83, cb 83, Ft. Deposit.
Total, 16.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cilley, Phillip Noble, mc Louisville 48, cb 78, Lowndesboro.
Dilburn, Samuel George, mc Alabama 75, cb 78, Braggs.
Harrison, King W., mc Alabama 96, cb 97, Palmyra.
McQueen, Samuel Thomas, mc Pennsylvania 55, cb 78, Ft. Deposit.

Powell, Charles William, mc Alabama 90, cb 90, Lowndesboro.
Reese, Charles Edwin, mc Jefferson 56, cb 78, Lowndesboro.
Sellers, Joel Carter, mc Vanderbilt 94, cb Crenshaw 94, Thomasville.
Strickland, Mack, mc Alabama 1900, cb 1900, Braggs.
Weatherly, Charles Talliferro, mc Atlanta 74, cb 85, Benton.
Winnemore, Samuel Eggleston, mc New York 56, cb 78, Benton.
Total, 10.

Moved out of the county—Dudley D. Stevens, from Judges Siding to Brundidge, Pike county.

Examinations—Mack Strickland, certificate granted.

Deaths—Abram Cruzer McRea, mc univ Pennsylvania 50, Lowndesboro; Samuel Taylor Peak, mc Vanderbilt 83, Benton; Edwin Lewis Sanderson, mc Jefferson 57, Letohatchie.

MACON COUNTY MEDICAL SOCIETY—Selma, 1879.

OFFICERS.

President, P. M. Lightfoot; Vice-President, F. M. Johnston; Secretary, P. Reynolds; Treasurer, P. Reynolds; Health Officer, L. W. Johnston. Censors—L. W. Johnston, P. Reynolds, F. M. Letcher, J. S. Lightfoot, J. T. May.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Johnston, Louis William, mc Alabama 81, cb 89, Tuskegee.
Johnston, Frank Means, mc univ of the South 1901, cb 1901, Tuskegee.
Letcher, Francis Marion, mc univ Louisiana 61, cb 79, Shorters.
Letcher, Joseph Bozeman, mc Tulane 97, cb 98, Shorters.
Lightfoot, John Steele, mc univ Nashville 68, cb 78, Cross Keys.
Lightfoot, Philip Malcolm, mc Alabama 1900, cb 1900, Cross Keys.
May, John Thomas, mc Alabama 91, cb 91, Notasulga.
Reynolds, Petit, mc Alabama 97, cb 97, Warrior Stand.
Smith, Milton Magruder, mc univ Louisville 91, cb Jefferson 91, Tuskegee.
Ward, William Solomon, mc Atlanta Southern 90, cb Chambers 95, Notasulga.
Total, 10.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Aikens, John Calhoun, mc Graffenburg, 46, cb Tallapoosa 78, Notasulga.
Breedlove, Benjamin Wilbur, mc Atlanta 93, cb 93, Tuskegee.

Chandler, Mosely Stuart, mc Atlanta 90, cb 90, Hannon.
Drakeford, John Ernest, mc univ Louisville 92, cb 92, Kinhaw.
Gautier, William James, mc univ Pennsylvania 50, cb 79, Tuskegee.
Kennebrew, Alonzo Homer, (col'd.), mc Meharry 97, cb 97, Tuskegee.
Magruder, William Perry, mc Atlanta 90, cb 90, Tuskegee.
Wood, George Pierce, mc Memphis Hospital 90, cb 90, Tuskegee.
Total, 8.

Moved into the county—M. S. Chandler, from Mississippi to Hannon.

Moved out of the county—James Preston Watkins, from Society Hill to Opelika, Lee county; Meigs Davie, from Hardaway to ——.

Examinations—Philip Malcolm Lightfoot, certificate granted; Frank Means Johnston, certificate granted.

Deaths—William Alexander Reynolds, January 11th, 1901, Warrior Stand; John Sistrunk, Society Hill.

MADISON COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, J. L. Darwin; Vice-President, W. D. Pettus; Secretary, Edgar Rand; Treasurer, Edgar Rand; Health Officer, W. C. Wheeler. Censors—F. E. Baldridge, W. T. Pride, T. E. Dryer, W. C. Darnall, W. C. Wheeler.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baldridge, Felix Edgar, mc univ Tulane 94, cb 95, Huntsville.
Blanton, Charles Edgar, mc univ Vanderbilt 82, cb 82, New Market.
Brook, Osceola Judkins, mc univ Tulane 93, cb Elmore 93, Huntsville.
Burke, James Pickens, mc univ Pennsylvania 53, cb 78, Meridianville.
Burman, James Fulton, mc univ Nashville 99, cb 99, Madison.
Darnall, William C., mc Nashville 90, cb Cherokee 90, Huntsville.
Darwin, James Lanier, mc Bellevue 88, cb 90, Huntsville.
Dryer, Thomas Edmund, mc Alabama 86, cb Macon 86, Huntsville.
Edelman, Louis, mc Kiningsburg 85, Curtis Ins. 91, cb Limestone 97, Huntsville.
Erskine, Albert Russell, mc univ Pennsylvania 51, cb 78, Huntsville.
Fletcher, Richard Matthew, Sr., mc univ Pennsylvania 54, cb 78, Madison.
Fletcher, Richard Matthew, Jr., mc Alabama 94, cb 94, U. S. Army.
Graham, Benjamin Emmett, mc univ of the South, Sewanee, 94, cb Jackson 94, Gurley.

Haden, William Wright, mc univ Vanderbilt 90, cb 92, Owens X Roads.
Hall, Benton, mc univ Tulane 1900, State Board 1900, Huntsville.
Hampton, John P., mc ——— —, cb 78, Meridianville.
Haney, Julius Tilman, mc Alabama 91, cb Colbert 92, Madison.
Heffiefinger, Marion Lorain, mc S of M Kentucky 94, cb 95, Huntsvillle.
Lowry, Samuel Hickman, mc Bellevue 73, cb 78, Huntsville.
McDonnell, Henry, mc univ Louisiana 68, cb 78, Huntsville.
Moorman, M. R., mc univ of the South 1901, cb 1901, Huntsville.
Pettus, Claude, mc univ Vanderbilt 96, cb Limestone 96, Monrovia.
Pettus, William David, mc univ Vanderbilt 68, cb 78, Rep.
Pride, William T., mc Tulane 95, cb 95, Madison.
Rand, Edgar, mc Alabama 78, cb Lawrence 78, Huntsville.
Westmoreland, Hawkins D., mc univ Vanderbilt 92, cb Limestone 93, Huntsville.
Wheeler, William Camp, mc Bellevue 62, cb Colbert 81, Huntsville.
Williamson, Edwin Oliver, mc Chattanooga 98, cb 98, Gurley.
Total, 28.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Allen, Alfred Sidney, mc Alabama 81, cb Tuscaloosa 88, New Market.
Brandon, T. H. (col.), mc Denver 98, cb 99 ——
Brouillette, Pierre L., mc Ohio 71, cb 84, Huntsville.
Buchanan, Roy M., mc univ Tennessee 99, cb 1900, Toney.
Burrett, William, (Homeopath), mc univ Vanderbilt 90, cb 97, Huntsville.
Burwell, Edward D., mc S of M Kentucky 78, cb 78, Huntsville.
Carpenter, James Allen, mc Alabama 96, cb 96, New Hope.
Cochran, Robert E. , (Botanic), mc univ Boston 85, cb Mobile 85, Huntsville.
Duffield, Alfred Manley, (Homeopath), mc univ Vanderbilt 86, cb 86, Farley.
Farley, John Benton, mc univ Vanderbilt 86, cb 86, Farley.
Flint, James C., mc univ Louisville 78, cb 78, Gurley.
Hatcher, Archie W., mc ——— —, cb 82, West Huntsville.
Hensley, William Thomas, mc univ Nashville 78, cb 78, Triana.
Hurtzler, John, (Homeopath), mc univ Nashville 78, cb 82, Triana.
Hinds, Byron William, mc univ Nashville 66, cb 78, New Hope.
Horton, John Jackson, mc univ Vanderbilt 81, cb Jackson 84, New Market.
Johnson Henry Raymond, mc Vanderbilt 87, cb Marshal 87, New Hope.

Lipscomb, Albin Willshire, mc univ Vanderbilt 96, cb 96, New Market.
Scruggs, Burgess E. (col.), mc univ Nashville 70, cb 79, Huntsville.
Shelby, Anthony B., mc ——— —, cb 78, Huntsville.
Total, 20.

Moved into the county—Edgar Rand, from Leighton, Lawrence county, to Huntsville; M. R. Moorman, from Somerville, Tenn., to Huntsville; I. W. Howard, from Scottsboro, Jackson county, to Huntsville.

Moved out of the county—F. H. May, Huntsville to Birmingham; Irvine W. Patton, U. S. Army, Philippine Islands.

Examinations—J. F. Burman, (examination held in 1899), certificate granted; R. M. Buchanan, certificate granted; T. H. Brandon, (col.), (examination held in 1899,) certificate granted; M. R. Moorman, certificate granted; J. L. Ford, certificate granted.

Deaths—William G. McKelvey, of suppurative hepatitis, February, 1901; Anthony Natalie Glover, Owens X Roads.

MARENGO COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, C. B. Whitfield; Vice-President, C. B. Thomas; Secretary, A. P. McArthur; Treasurer, J. B. Whitfield; Health Officer, W. L. Kimbrough. Censors—J. H. George, S. P. Hand, D. C. Moseley, W. L. Kimbrough, J. R. Goodloe.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Foscue, Francis Lewis, mc Jefferson 84, cb Perry 85, Demopolis.
George, James Hosea, mc South Carolina —, cb 78, Linden.
Goodloe, John Russell, mc univ Vanderbilt 93, cb Sumter 94, Demopolis.
Hand, Samuel Patton, mc univ Louisiana 83, cb Sumter 83, Demopolis.
Jones, Green Irvin, mc Atlanta 82, cb —, Jefferson.
Jones, James D., mc Alabama 94, cb 94, Sweet Water.
Kimbrough, William Leonard, mc univ Louisiana 83, cb 93, Linden.
Lockhart, William Crocheron, mc Alabama 89, cb 89, Dayton.
McArthur, Andrew Patterson, mc Alabama 85, cb Mobile 85, Rembert.
McCants, Robert Bell, mc Georgia Southern 82, cb 82, Demopolis.
Skinner, John S., mc Alabama 97, cb 98, Shiloh.
Smith, Seth David, mc univ Louisiana 54, cb 78, Demopolis.
Thomas, Charles Brooks, mc Atlanta Southern 83, cb 83, Thomaston.

Whitfield, Charles Boaz, mc phys and surg New York 71, cb 78, Demopolis.
Whitfield, George, mc univ Pennsylvania 58, cb 78, Old Spring Hill.
Whitfield, James Bryan, mc univ Pennsylvania 67, cb 82, Demopolis.
Wilson, Isham Griffin, mc univ Louisiana 58, cb Dallas 78, Demopolis.
Total, 17.

Honorary Member.

Evans, Josiah Thomas, mc Jefferson 67, cb 78, Myrtlewood.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Barron A. Lee, mc Memphis Hospital 98, cb 98, Sweet Water.
Cole, William W., mc Pennsylvania 50, cb —, Jefferson.
Gillespie, Robert Clanton, mc univ Louisville 83, cb 83, Putnam.
McCorkle, Thomas James, mc Alabama 83, cb 83, Siddonsville.
Moseley, Daniel Coleman, mc Alabama 88, cb —, Faunsdale.
Nichols, James Eli, mc Alabama 91, cb —, Nicholsville.
Pegram, William Edward, old law, 44, cb 79, Dayton.
Poellnitz, Benjamin Bruno, mc univ Louisiana 47, cb 86, Rembert.
Ruffin, James Sterling, mc univ Pennsylvania 49, cb 78, Demopolis.
Slade, Henry, mc Alabama 72, cb 87, Magnolia.
Stone, Augustus Bosworth, mc Alabama 86, cb Baldwin 86, Demopolis.
Stone, Sardine Graham, mc Alabama 87, cb Calhoun 87, Nanafalia.
Tucker, William Sidney, mc S of M Kentucky 90, cb 93, Luther's Store.
Wood, John Hackworth, mc Alabama 86, cb 86, Dixon's Mills.
Total, 14.

Moved out of the county—Bryan Watkins Whitfield, from Demopolis to Nauvoo, Walked county.

Deaths—Edmund Strudwick, mc Jefferson 57, cb 78, of la grippe, May 22, 1900.

MARION COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

President, A. L. Moorman; Vice-President, M. C. Martin; Secretary, C. L. Woods; Treasurer, J. H. Stone; Health Officer, J. R. Burleson. Censors—J. R. Burleson, K. B. Goggans, Warren Guyton, John Sherman, C. L. Woods.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Burleson, John Rufus, mc Memphis Hospital 97, cb 97, Hamilton.
Clark, William Felin, ng. cb 88, Hamilton.
Ernest, James Franklin, ng. (old law), cb 88, Winfield.

Goggans, Kimbro Buck, mc Memphis Hospital 93, cb 93, Hackleberg.
Guyton, Warren, mc Kentucky 79, cb 88, Hamilton.
Johnson, John Carroll, mc Louisville 92, cb Fayette 92, Glen Allen.
Martin, Middleton C., ng, cb 88, Hamilton.
McCreary, William Jefferson, mc Memphis 93, cb 93, Guin.
Moorman, Achilles Lucian, mc Kentucky 70, cb 88, Bexar.
Morton, T. Clark, mc Chattanooga —, cb Fayette 88, Winfield.
Palmer, Benjamin F., ng, cb 88, Palmer.
Sherman, John, mc Atlanta 96, cb Marshall 96, Bear Creek.
Stone, John Henry, mc Vanderbilt 98, cb 1901, Tremont, Miss.
Woods, Clarence Love, mc Memphis 98, cb Lamar 98, Hamilton.
Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cochran, William Jefferson, ng, cb 88, Gold Mine.
Holloday, Walter Scott, ng, cb 88, Bexar.
Palmer, R. R., ng. cb 88, Bexar.
Roden, V. G., ng, cb 88, Bear Creek.
Shelton, William, ng.
Williams, E. L., ng, cb 88, Winfield.
Total, 6.

Illegal—Brooks, T. P. W., Hackleburg.

Moved into the county—John Sherman, from ——— to Bear Creek.

Moved out of the county—J. A. Jackson, from Glen Allen to Gatman, Miss.; James L. Patton, from —— to Detroit, Lamar county.

Examinations—James Luther Patton, Memphis M. H. C., 1900, certificate granted.

MARSHALL COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

President, T. A. Casey; Vice-President, S. M. Elrod; Secretary, M. P. Stephens; Treasurer, M. P. Stephens; Health Officer, P. B. Lusk. Censors—P. B. Lusk, T. A. Casey, P. M. Baker, D. A. Morton, S. M. Elrod.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Baker, P. M., mc Atlanta Southern 92, cb Blount 94, Boaz.
Casey, Thaddeus Alonzo, mc Vanderbilt 91, cb 91, Albertville.
Davis, Samuel J., mc Atlanta 82, cb Randolph 82, Albertville.
Elrod, Samuel Martin, mc Vanderbilt 94, cb DeKalb 94, Albertville.
Elrod, William Addison, mc univ of South 1901, cb 1901, Albertville.

Hall, William Presley, mc Atlanta 86, cb 86, Albertville.
Jones, Thomas A., mc Birmingham 97, cb Chilton 97, Hyatt.
Lusk, Phocean B., mc Bellevue 91, cb 91, Guntersville.
Morton David A., mc Chattanooga 96, cb 96, Boaz.
Noel, William Lewis, ng, cb 86, Boaz.
Shipp, Montgomery Gilbert, mc Vanderbilt 1901, cb 1901, Martling.
Stephens, Miles P., mc univ Grant 94, cb Blount 94, Reedbrook.
Total, 12.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Boyd, J. W., ng, Boaz.
Collins, David, mc univ Vanderbilt 1901, cb 1901, Mid.
Dodd, J. T., illegal, Boaz.
Dowdy, Lee, ng. illegal, Martling.
Hinds, Montgomery L., mc Vanderbilt 91, cb Cullman 92, Arab.
Hinds, William, mc Alabama —, cb Blount —, Arab.
Jackson, J. M., mc ——— —, cb —, Guntersville.
Jordan, David Carnes, mc Memphis 92, cb 92, Guntersville.
Lowery, John, ng, cb 86, McLarty.
McGahey, Joseph Jefferson, ng, cb 86, Columbus City.
Noel, William Earl, mc univ Grant 99, cb Jackson 1900, Marshall.
Parris, Daniel, mc univ Vanderbilt 01, cb 01, McVille.
Total, 12.

Moved out of the county—J. J. Patterson, from Marshall to Texas; Millard F. Patterson, from Mid to Texas.

Examinations—D. Bruce Collins, Vanderbilt 1900, certificate granted; William Addison Elrod,univ of South, 1900, Certificate granted; James Tolliver Elrod, mc univ of South 1900, certificate granted; John Calhoun Harris, mc Chattanooga 1900, certificate granted; Daniel Parris, mc Chattanooga 1900, certificate granted; Montgomery, Gilbert Shipp, mc Vanderbilt 1900, certificate granted; William Pelham Turk, mc Atlanta 92, certificate granted; Delimus Wesley Wilson, mc Chattanooga 1900, certificate granted.

Deaths—William M. Scarbrough, ng, cb 87, Albertville.

MOBILE COUNTY MEDICAL SOCIETY—Mobile, 1878.

OFFICERS.

President, C. N. Owen; Vice-President, W. T. Henderson; Secretary, J. T. England; Treasurer, J. G. Thomas; Health Officer, P. J. M. Acker. Censors—G. A. Ketchum, G. Owen, J. G. Thomas, C. A. Mohr, V. P. Gaines.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Acker, Paul Jerome Morris, mc Alabama 92, cb 92, Mobile.
Bancroft, Marion Joseph, mc Alabama 99, cb Mobile 1900, Mobile.

Bondurant, Eugene DuBose, mc univ Virginia 83, cb Hale 83, Mobile.
Campbell, Douglass Gwin, mc Alabama 96, cb 96, Mobile.
Crampton, Anson Lucius, mc Bellevue 65, cb 88, Mobile.
England, John Tillman, mc Alabama 99, cb 99, Mobile.
Fonde, George Heustis, mc Alabama 97, cb 97, Mobile.
Fonde, Keith, mc Alabama 94, cb 94, Citronelle.
Frazer, Tucker Henderson, mc Alabama 88, cb Lee 88, Mobile.
Gaines, Vivian Pendleton, mc Alabama 72, phys and surg New York 73, cb Choctaw 79, Mobile.
Goldthwaite, Henry, mc Alabama 96, cb 96, Mobile.
Goode, Rhett, mc Alabama 71, cb 78, Mobile.
Goodman, Duke Williams, mc univ Louisiana 91, cb 92, Mobile.
Henderson, William Thomas, mc Detroit 96, cb 97, Mobile.
Hendon, James Jefferson, mc Alabama 86, cb 86, Mobile.
Hirshfield, Henry Phillips, mc univ Pennsylvania 78, cb 78, Mobile.
Howard, Percy John, mc Alabama 96, cb 96, Mobile.
Inge, Henry Tutwiler, mc univ New York 83, cb 83, Mobile.
Inge, James Tunstall, mc univ New York 94, cb 94, Mobile.
Inge, Richard, mc univ New York 71, univ Virginia 79, cb Hale 78, Mobile.
Jackson, William Richard, mc Alabama 88, cb 88, Mobile.
Ketchum, George Augustus, mc univ Pennsylvania 46, cb 78, Mobile.
Killebrew, J. Buckner, mc univ Virginia 96, cb Tuscumbia 97, Mobile.
Maréchal, Edwin Lesley, mc Alabama 70, cb Baldwin 86, Mobile.
McIntosh, William Pade, U. S. M. H. S., Mobile.
Mohr, Charles A., mc Alabama 84, cb 92, Mobile.
Mohr, Herman Brent, mc Alabama 91, cb 92, Mobile.
Owen, Calvin Norris, mc Alabama 88, cb 88, Mobile.
Owen, Goronway, mc univ Pennsylvania 57, cb 78, Mobile.
Oates, William Henry, mc Bellevue 98, cb 1900, Mobile.
Pape, William Barnemore, mc Alabama 82, cb 82, Mobile.
Porter, Ira Webster, mc Alabama 92, cb 92, Mobile.
Pugh, Sidney Stewart, mc univ Louisiana 89, cb Clarke 89, Mobile.
Sanders, William Henry, mc Jefferson 61, cb 78,Mobile.
Scales, Thomas Sidney, mc phy and surg New York 67, cb 78, Mobile.
Scales, Willis West, mc Alabama 96, cb 96, Mobile.
Sledge, William Henry, mc Alabama 80, cb Sumter 80, Mobile.
Tam, Silas Springer, mc Alabama 94, cb 94, Mobile.
Terrill, Joshua D., mc Ohio 85, cb 92, Mobile.
Thomas, James Grey, mc univ Pennsylvania 56, cb 78, Mobile.

Thomas James Grey, Jr., mc Alabama 98, cb 99, Mobile.
Wright, Rufus Ashe, mc Alabama 96, cb Sumter 90, Mobile.
Total, 42.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Blewitt, Means, mc ——, cb ——, Citronelle.
Clarke, W .H., mc Alabama 94, cb —, Mobile.
Dickson, T. Aubrey, mc univ Tulane 92, cb Montgomery 92, Mobile.
Edmunds, Samuel C., mc univ Louisville 56, cb 92, Spring Hill.
Edwards, William, mc Alabama 80, cb 80, Bayou La Batre.
Gaines, Marion Toulmin, mc Alabama 90, cb 92, Toulminville.
Glass, Parker Josiah, mc Alabama 84, cb 85, Mobile.
Hall, Alexander P., mc univ Louisiana 59, cb 78, Mobile.
Harris, Thomas Nathaniel, mc Meharry 99, State Board 99, Mobile.
Harris, Oliver H., mc Alabama 95, cb 96, Mobile.
Hawley, John B., mc —, cb —, Mobile.
Johnston, David Elijah, mc Georgia 68, cb 78, Mobile.
Jones, Paul Ray, mc univ Vanderbilt 98, cb Franklin 98, Whistler.
Lyon, George G., mc Pulte (Homeopathic) 88, cb —, Mobile.
Malay, Ranney, Phelps, mc Alabama 84, cb Elmore 84, Whistler.
Mastin, Claudius Henry, Jr., mc univ Pennsylvania 84, cb 84, Mobile.
Mastin, William McDowell, mc univ Pennsylvania 74, cb 78, Mobile.
Michael, Jacob G., mc univ Virginia 60, cb 78, Citronelle.
Myers, Augustus P., mc St. Louis (Homeopathic) 88, cb —, Mobile.
Roemer, Francis John Baptiste, mc univ Louisiana 36, cb 78, Spring Hill.
Roe, Charles K., mc ——, cb —, Spring Hill.
Sawyer, Julian E., mc univ Louisville 96, cb Geneva 96, Mobile.
Sherard, Frank Ross, mc univ Pennsylvania 94, cb 94, Mobile.
Ward, Alfred G., Jr., mc Alabama 94, cb 94, Mobile.
Ward, William G. Jr., mc Alabama 95, cb 95, Mobile.
Williams, Henry Rodger (col.), mc Meharry 1900, cb Morgan 1900, Mobile.
Total, 26.

Moved into the county—E. J. Post, from —— to Oak Grove; P. R. Jones, from Franklin county to Whistler; H. R. Williams (col.), from Morgan county to Mobile; J. B. Killebrew, from Tuscaloosa county to Mobile.

Moved out of the county—Burgett Woodcock, from Mobile to Vinegar Bend, Washington county.

Examinations—William Willard S. Mason, mc New Orleans, 1900, certificate refused; Emmitt Hilbert Bottom, mc St. Louis 97, certificate refused; Marion Joseph Bancroft, mc Alabama 99, certi-

ficate granted; William Claiborne Williams, mc Alabama 1900, certificate granted; Nathaniel Scales Gay, mc Alabama 1900, certificate granted; William Henry Oates, mc Bellevue Hospital 98, certificate granted.

Death—Miles Edward McCarty, Whistler.

MONROE COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, F. S. Dally; Vice-President, C. E. Bizzele; Secretary, J. M. Wiggins; Treasurer, J. M. Wiggins; Health Officer, J. M. Wiggins. Censors—W. H. Hestle, W. J. Mason, J. W. Rutherford, J. W. Busey.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, William Henry, mc Pennsylvania 48, cb Wilcox 77, Tinela.

Bizzelle, Clarence Eugene, mc univ Vanderbilt 93, cb 93, Monroeville.

Busey, John W., mc Alabama 94, cb 94, Jones' Mill.

Burroughs, William Monroe, mc South Carolina 59, cb 77, Pineville.

Chapman, William Rufus, mc Georgia Reform 79, cb 79, Simpkinsville.

Cole, D. D., mc Alabama 98, cb 98, Mt. Pleasant.

Daily, Fielding Straughn, mc Alabama 71, cb 77, Kempville.

Hestle, William Monroe, mc Alabama 95, cb 85, Buena Vista.

Mason, Francis Henry, mc Alabama 91, cb 91, Tinela.

Mason, William Joseph, mc Atlanta 84, cb Wilcox 84, Activity.

Rutherford, James Wallace, mc Alabama 93, cb 93, Franklin.

Scott, Gladin Gorin, mc univ Louisville 85, cb 85, Mt. Pleasant.

Stallworth, William Allen, mc Alamaba 93, cb 93, Pineville.

Wiggins, James Monroe, mc Alabama 78, cb 78, Monroeville.

Total, 14.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Draughan, Robert I., mc —— —, cb —, Perdue Hill.

Gailiard, George Walter, mc univ Louisville 82, cb 83, Perdue Hill.

Russell, James Thomas, mc Georgia Reform 55, cb 77, Monroeville.

Total, 3.

MONTGOMERY COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, Robert Goldthwaite; Vice-President, F. H. McConnico; Secretary, C. T. Pollard; Treasurer, Shirley Bragg; Health Officer, R. N. Pitts. Censors—Glenn Andrews, B. R. Pearson, M. L. Wood, J. L. Gaston, W. G. Bibb.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Anderson, John Mordecia, mc univ City New York 91, cb 91, Montgomery.

Andrews, Glenn, mc univ City New York 86, cb 86, Montgomery.

Baker, James Normant, mc univ Virginia 98, cb 1900, Montgomery.

Baldwin, Benjamin James, mc Bellevue 77, cb 83, Montgomery.

Battle, Joseph Thomas, mc Georgia 67, cb Barbour 87, Highland Park.

Billing, Samuel Aydelotte, mc Bellevue 97, cb 97, Montgomery.

Bibb, William George, mc univ Vanderbilt 78, cb 78, Montgomery.

Bragg, Shirley, mc Alabama 75, cb Lowndes 79, Montgomery.

Chapman, Benjamin Sidney, mc univ City New York 92, cb 92, Montgomery.

Dennis, George A., mc Atlanta Southern 93, cb Autauga 93, Montgomery.

Gaston, John Brown, mc univ Pennsylvania 55, cb 78, Montgomery.

Gaston, Joseph Lucius, mc phys and surgs New York 85, cb 88, Montgomery.

Goldthwaite, Robert, mc Bellevue 93, cb 94, Montgomery.

Henry, John Hazzard, mc Philadelphia 51, cb Dallas 79, Montgomery.

Hill, Luther Leonidas, mc univ City New York 81, cb Jefferson 81, Montgomery.

Hill, Robert Somerville, mc univ City New York 91, cb 91, Montgomery.

Hill, Robert McCullough, mc univ City New York 60, cb 78, Mt. Meigs.

Hogan, Samuel Mardis, mc univ Louisville 73, cb Bullock 80, Montgomery.

Jackson, Walter Clark, mc univ Pennsylvania 52, cb 78, Montgomery.

Johnson, Oscar, mc Alabama 96, cb Pike 96, Downing.

Kirkpatrick, Milton Barnes, mc univ Tulane 96, cb Crenshaw 96, Montgomery.

Law, William Lamar, mc univ Tulane 94, cb Dallas 95, Montgomery.

Mason, Joseph Crump, mc Bellevue 81, cb 81, Snowdoun.

McConnico, Frank H,, mc univ Tulane 99, cb Wilcox 99, Montgomery.

McCrummin, Norman Henry, mc univ Vanderbilt 84, cb 85, Ramer.

Michel, Richard Frazer, mc South Carolina 47, cb 78, Montgomery.

Montgomery, Arthur Hugh, mc Atlanta 98, cb 98, Montgomery.

Naftel, St. John, mc univ City New York 59, cb Lowndes 78, Montgomery.

Pearson, Benjamin Rush, mc Alabama 81, cb 81, Montgomery.

Pearson, Coleman Ferrell, mc Alabama 1900, cb 1900, Montgomery.

Persons, Henry Stanford, mc univ Virginia 93, cb Lee 94, Montgomery.

Pitts, Robert Newton, mc Atlanta 90, cb Russell 90, Montgomery.

Pollard, Charles Teed, mc univ Tulane 97, cb 97, Montgomery.

Powell, Claudius William, mc Alabama 88, cb 88, Fleta.

Robinson, Louis Dominick, mc univ Tulane 96, cb 96, Montgomery.

Rushing, Thomas Elbert, mc Alabama 90, cb 91, Pike Road.

Sadler, John Milton, mc univ Louisiana 73, cb Perry 78, Montgomery .

Sadler, Wilbur Fisk, mc phy and surg Baltimore 91, cb Autauga 91, Montgomery.

Steiner, Samuel Jackson, mc univ Vanderbilt 79, cb 79, Montgomery.

Stevenson, Forney Caldwell, mc phy and surg New York 93, cb Calhoun 93, Montgomery.

Stough, Thomas Jefferson, mc univ Tennessee 93, cb Crenshaw 93, Chisholm.

Sturm, Max, mc Ohio 89, cb Autauga 95, Montgomery.

Thigpen, Charles Alston, mc univ Tulane 88, cb Butler 88, Montgomery.

Thorington, Thomas Chilton, mc univ Tulane 94, cb 94, Montgomery.

Townsend, A. F., mc ——, cb —, Pine Level.

Townsend, James B., mc ——, cb —, Pine Level.

Waller, George Platt, mc univ City New York 92, cb 92, Montgomery.

Watkins, Isaac LaFayette, mc Bellevue 78, cb Bullock 86, Montgomery.

Weeden, Hamilton, mc Alabama ——, cb Barbour —, Montgomery.

Wilkerson, Wooten Moore, mc univ City New York 80, cb Perry 80, Montgomery.

Wilkerson, Charles Walter, mc univ Tulane 98, cb Perry 98, Montgomery.

Wood, Milton LeGrand, mc Bellevue 77, cb 84, Montgomery.

Total, 52.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Brown, James Mack, mc Alabama 89, cb 89, Sellers.

Buchanan, J. P., mc Alabama 90, cb Butler 90, Montgomery.

Calloway, James Wesley, mc univ Vanderbilt 81, cb 82, Snowdoun.
Centerfit, Samuel Earle, mc univ City New York 98, State Board 99, Montgomery.
Cutts, William Parsons, ng, (old law), cb 78, Chambers.
Davis, Leroy W., mc Georgia 57, cb 78, Morganville.
Duncan, Thomas, mc Alabama 92, cb 92, Mt. Carmel.
Dungee, Alfred Coleman (col.), mc Howard 89, State Board 91, Montgomery.
Grimes, Erasmus Darwin, mc univ Louisville 66, cb 77, Montgomery.
Harris, Andrew Jackson, mc ——, cb 85, Lapine.
Jackson, Edward Beatty, mc Alabama 85, cb 85, Ramer.
Kendrick, William Toulmin, mc Atlanta 76, cb Butler 78, Montgomery.
Kirk, Eben Bell, mc Alabama 85, cb 85, Montgomery.
McDade, James, mc Georgia 72, cb 78, Waugh.
McLean, James, mc univ Louisville 66, cb 78, Hope Hull.
Merriwether, James L., mc ——, cb —, Mathews.
Nicholson, John Cogburn, mc Jefferson 55, cb 75, Mt. Meigs.
Patterson, Daniel S., mc ——, cb —, Montgomery.
Sankey, George L., mc univ Louisville 77, cb 78, Tharin.
Sankey, John Thomas, mc ——, (retired), cb 78, Tharin.
Scott, David H. C. (col.), mc Nashville 95, cb Jefferson 95, Montgomery.
Stone, Henry Llewellen, mc univ Maryland 68, (retired), Montgomery.
Total 22.

Moved into the county—J. M. Wallace, from Tallassee, Elmore county, to Montgomery; —— Gramlin, from —— to Montgomery.

Moved out of the county—James A. Wilkinson, from Montgomery to Flomaton, Escambia county.

Examinations—J. N. Baker, cerificate granted; C. F. Pearson, certificate granted.

Deaths—Jesse Holmes, Naftel; Thomas Alexander Means.

*MORGAN COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

President, F. B. Hunter; Vice-President, W. C. Buckley; Secretary, E. J. Conyngton; Treasurer, E. J. Conyngton; Health Officer, S. L. Rountree. Censors—M. W. Murray, W. C. Buckley, W. L. Dinsmore, S. L. Rountree, W. A. Barclift.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barclift, Willis Anderson, mc univ Tennessee 78, cb 79, Hartsell.

Buckley, Walter Colquit, mc phy and Surg New York 85, cb 87, Decature.

Conyngton, Enoch James, mc St. Louis 83, cb 87, Decatur.

Cook, W.. H., mc ——, cb —, Falkville.

Dinsmore, William Lewis, mc univ Vanderbilt 81, cb Lawrence 82, Decatur.

Hunter, Felix Bryan, mc univ Vanderbilt 81, cb Lawrence 86, Falkville.

Martin, ——— ———, mc —, cb —, Basham's Gap.

Murray, Michael William, mc univ McGill, Montreal, Canada 90, cb 90, New Decatur.

Rountree, Scott Louis, mc Jefferson 58, cb 78, Hartsell.

Shelton, John Benjamin, mc St. Louis 92, cb Jackson 96, New Decatur.

Sherrill, Richard Byrd, mc Alabama 87, cb 84, Hartsell.

Winton, David Macon, mc Alabama 86, cb 86, Summerville.

Total, 12.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Binford, Peter, mc New Orleans 61, cb Morgan 79, Summerville.

Gaston, Paul Cheeves, mc univ Vanderbilt 78, cb Limestone 78, New Decatur.

Gill, Jordan Lawrence, mc univ Louisville (one course) 69, cb 78, Summerville.

Gillespie, James Clark, mc univ Vanderbilt 81, cb Madison 81, New Decatur.

Hodgepoom, Charles Ellis, mc —, 90, Talucah.

Hodges, John Pruitt, mc univ Vanderbilt 78, cb Lawrence 78, Danville.

Kitchens, John Mowbray, mc Alabama 85, cb Lawrence 85, Hartsell.

Oden, Alexander Hamilton, ng, cb Cullman 78, Lawrence Cove.

Peck, Cicero Fain, mc univ Tennessee 90, cb 90, Summerville.

Ryan, Thomas LaFayette, mc univ Nashville 58, cb 87, Hartsell.

Smith, John Stanhope, mc univ Louisville 47, cb 78, Woodland Mills.

Steers, Willis Wood, (col.) mc univ Michigan 88, cb Montgomery 88, Decatur.

Stephenson, Edison David, mc univ Nashville 68, cb 78, Danville.

Stephenson, Richard Lewis, ng, cb 78, New Decatur.

Stringer, William Morton, mc univ Tennessee 93, cb 99, Falkville.

Thomason, William Black, mc Memphis —, cb 86, Hartsell.
Turney, Joseph Simpson, mc univ Vanderbilt 82, cb 82, Hartsell.
Wilhite, Simeon Madison, mc Memphis 91, cb 91, Cedar Plains.
Wilson, Able Robert, mc Alabama (one course), cb Lawrence 85, Hartsell.
Total, 19.

*NOTE—As no report has been received from Morgan county this year, the report of 1900 is here reproduced.

PERRY COUNTY MEDICAL SOCIETY—Montgomery, 1875.

OFFICERS.

President, Samuel Perry; Vice-President, G. R. Johnson; Secretary, J. B. Hatchett; Treasurer, E. B. Thompson; Health Officer, ————. Censors—O. L. Shivers, J. B. Hatchett, E. B. Thompson, Edward Swann, G. R. Johnson.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barron, William Rowan, mc univ Virginia 61, cb 78, Scotts.
Coleman, Samuel L., mc Tulane 99, co Marengo 99, Uniontown.
Downey, William Thomas, mc univ Louisiana 70, cb Hale 70, Folsom.
Hatchett, James Benton, mc univ Vanderbilt 90, cb Limestone 90, Marion.
Johnson, Gaius Rowan, mc S of M Kentucky 92, cb 92, Marion.
McLean, James Neal, mc Alabama 99, cb Lowndes 99, Uniontown.
Perry, Samuel, mc South Carolina 54, cb 78, Marion.
Shivers, Offa Lunsford, mc univ Louisiana 73, cb Hale 78, Marion.
Swann, Edward, mc S of M Kentucky 95, cb 95, Sprott.
Thompson, Elias Benson, mc univ Louisiana 69, cb 78, Marion.
Whitfield, Sidney Thomas, mc univ Tulane 94, cb 94, Uniontown.
Wilkerson, Charles A., mc univ New York 75, cb 78, Marion.
Total, 12.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Collier, Armstead Mayfield, ng, cb 78, Chadwick.
Langhorne, John Miller, mc univ Pennsylvania 48, cb 78, Uniontown.
Pou, James Rufus, mc univ South Carolina 55, cb 78, Uniontown.
Payne, Thomas H., mc —, cb Shelby —, Perryville.
Robinson, C. Byron, mc Louisville 92, cb Lowndes 92, Scotts' Sta.
Tucker, James Buchanan, mc univ Vanderbilt 78, cb 79, Jericho.
Total, 6

Moved into the county—Samuel Perry, from Birmingham to Marion.

Examinations—Alfred Dennis Simington (col.), mc Meharry, certificate granted.

PICKENS COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, S. H. Hill; Vice-President, D. W. Glass; Secretary, A. A. Kirk; Treasurer, A. A. Kirk. Health Officer, A. B. Price. Censors—G. B. Wimberly, A. A. Kirk, D. W. Gass, T. H. Henry, A. K. Collins.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Clear, Christopher Columbus, mc Alabama 85, cb 85, Noland.
Collins, Alonzo K., mc ——— —, cb —, Palmetto.
Davis, John Longmire, mc univ Vanderbilt 88, cb 88, Gordo.
Gass, D. William, mc univ Birmingham 99, cb 99, Pickensville.
Henry, Taylor H., mc Memphis 99, cb 99, Palm.
Hill, Samuel Henry, mc univ Louisville 70, cb 78, Carrollton.
Kirk, Arthur Albertus, mc Alabama 98, cb 99, Gordo.
Price, A. Bascome, mc Alabama 98, cb 99, Gordo.
Upchurch, Harvey Benton, mc Alabama 92, cb 92, Carrollton.
Wimberly, Gilbert Bush, mc Alabama 92, cb 92, Reform.
Total, 10.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Agnew, James Alexander, mc Alabama 74, cb 78, Neal's Mill.
Cook, Thomas Hugh G., mc Alabama 86, cb 86, Stone.
Duncan, John Francis, mc Alabama 74, cb 78, McShan.
Hancock, Jessie, mc Alabama 78, cb 78, Ethelville.
Long, James Barckley, mc univ Louisville 93, cb 95, Pickensville.
Moody, Joseph, mc Alabama 71, cb 78, Franconia.
Moorehead, Henry Clay, mc Alabama 69, cb 78, Ethelville.
Murphy, Thomas Elmore, mc Alabama 92, cb 92, Bethany.
Snoddy, Ephrim A., mc Alabama 97, cb 97, Garden.
Williams, Henry Lawrence, mc Jefferson 53, cb 97, Dunbar, Miss.
Wyatt, Rufus Riley, mc univ Nashville 84, cb 89, Memphis.
Total, 11.

Moved into the county—Robert O. Patton, from Brookwood, Tuscaloosa county, to Temple.

Moved out of the county—Seaborn Edgar Deal, from Pleasant Grove, to Mantua, Greene county.

Deaths—Samuel J. Sterling, mc Alabama 61, cb 78, Olney, paralysis; James Francis Barnett, mc Alabama 92, cb 92, Temple, August,

1900, angino pectoris; Thomas Harlan McKinstry, mc Alabama 93, cb 93, Carrollton, November, 1899, pneumonia.

PIKE COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, W. S. Sanders; Vice-President, J. S. Beard; Secretary, P. U. Brown; Treasurer, E. G. Ford; Health Officer, C. W. Hilliard. Censors—P. H. Brown, J. S. Beard, W. B. Sanders, P. U. Brown, J. A. McEachern.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bean, James Madison, mc Bellevue 79, cb 83, Monticello.
Beasley, James M., mc Alabama 96, cb 96, Orion.
Beard, Josephus Simmons, mc univ New York 76, cb 79, Troy.
Broach, Francis Marion, mc Atlanta 90, cb 90, Ansley.
Brown, Pugh H., mc univ New York 54, cb 78, Troy.
Brown, Pugh Ulpian, mc Tulane 95, cb 95, Troy.
Dismuke, L. L., mc Alabama 96, cb 96, China Grove.
Ford, Elchana Gardner, ng. (old law) 56, cb 78, Troy.
Hilliard, Charles W. Sr., mc Georgia Reform 61, cb 78, Troy.
McEachern, Conoly Pinkney, mc Alabama 96, cb 96, Banks.
McEachern, John Adolphus, mc Louisville 89, cb 89, Troy.
Robertson, James Wiley, mc Atlanta 93, cb 93, Troy.
Sanders, William B., mc Atlanta Southern 85, cb 85, Troy.
Sanders, William Shelby, mc univ Vanderbilt 92, cb 92, Troy.
Watkins, James Monroe, mc univ Vanderbilt 94, cb 94, Troy.
Total, 15.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Albritton, George Allen, mc Louisville 72, cb Crenshaw 82, Henderson.
Boyd, Leroy R., mc Alabama 87, cb —, Troy.
Crossley, William Andrew, mc South Carolina 54, cb 78, Banks.
Dennis, S. H., mc univ Graffenberg 58, cb 78, Olustee Creek.
Dewberry, John Hunter, mc Jefferson 54, cb 78, Brundidge.
Dismuke, Benjamin James, mc Georgia 57, cb 84, China Grove.
Eiland, William A., mc Atlanta 81, cb 84, Henderson.
Foreman, Howell, mc Jefferson 58, cb 78, Brundidge.
Hamil, Irby Watson, mc Louisville 76, cb 78, Goshen Hill.
Johnson, Edward Harris, mc univ Washington 69, cb Crenshaw 82, Troy.
Salter, C. P., mc ——— —, cb —, Josie.
Stough, D. B., mc ——— —, cb —, Shady Grove.
Townsend, Austin C., mc Augusta, Ga., 61, cb 78, China Grove.

Treadwell, L. M., illegal, Troy.
Wagner, John Troup, ng, cb Montgomery 78, Shady Grove.
Watkins, Lucius, Henderson.
Total, 16.

Moved out of the county—James C. Pennington, from Orion to Russell county; Charles W. Hilliard, Jr., from Troy to Elba, Coffee county; James T. Mullins, from Troy to Talladega; J. Knox Mullins, from Troy to Philippines (U. S. Army).

Examinations—Francis Asbury Boswell, mc Alabama 1900, certificate granted; John David Johnston, Atlanta College phys and surg 1900, certificate refused; Benjamin C. Stewart, mc Alabama 1900, certificate granted.

RANDOLPH COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, J. W. Hooper; Vice-President, W. G. Floyd; Secretary, P. G. Trent, Sr.; Treasurer, P. G. Trent, Sr.; Health Officer, P. G. Trent, Jr. Censors—W. G. Floyd, C. B. Wright, H. B. Disharoon, J. C. Swann, J. W. Hooper.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bonner, William Wallace, mc Atlanta Southern 92, cb 94, Rock Mills.
Disharoon, Henry Beauregard, mc phy and surg Baltimore 85, cb 85, Roanoke.
Duke, Jefferson Davis, mc Atlanta Southern 84, cb 88, Graham.
Floyd, William Gibson, mc univ Maryland 88, cb 92, Roanoke.
Hooper, John Wilson, mc Jefferson 84, cb Tallapoosa 84, Roanoke.
Jordan, Charles Alexander, mc Atlanta Southern 84, cb 87, Swann.
Pool, Wyatt Heflin, mc Georgia 67, cb 79, Roanoke.
Swann, Joseph Charles, mc Atlanta 90, cb 90, Wedowee.
Traylor, George Washington, mc Georgia 91, cb 94, Lamar.
Trent, Powhattan Glover, mc Atlanta 88, cb 88, Roanoke.
Trent, Powhattan Green, mc Jefferson 67, cb 85, Roanoke.
Welch, James Madison, mc Atlanta Southern 92, cb 93, Truett.
White, Luther Leonidas, ng, cb 79, White.
Wood, James William ,mc Atlanta Southern 97, cb Clay 97, Almond.
Wright, Columbus B., mc Atlanta 98, cb 98, Wedowee.
Total, 15.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Black, Nathaniel Spragins, mc univ New York 61, cb Russell 87, Louisia.

Dean, Pierce Elliott, mc Alabama 92, cb 93, Wedowee.
Dowdy, R. M., mc univ Vanderbilt —, cb —, Hightower.
Gauntt, Elbert Tillman, mc Atlanta 76, cb 84, Ophelia.
Green, Elbert Pierce, mc Georgia 99, cb 99, Wehadkee.
Heflin, Wilson Lumpkin, mc Georgia 48, cb 85, Roanoke.
Hood, Joseph Robertson, mc Oglethorpe 57, cb 85, Wedowee.
Liles, Madison DeKalb, ng, cb 79, Dingler.
Stevens, Reuben Calvin, mc Atlanta Southern 92, cb Cleburne 97, Graham.
Vineyard, James Leonard, mc Georgia Reform 49, cb 79, Rock Mills.
Weathers, William, ng, cb 87, High Shoals.
Total, 11.

Moved out of the county—William Head McLendon, mc Alabama 96, cb 96, from Rock Mills to West Point, Ga.; Charleton Thimpson, mc phy and surg Atlanta 99, cb 99, from Roanoke to Phoenix City, Lee county.

Examinations—Andrew Jackson Clardy, mc Chattanooga 1900, certificate refused.

Death—Michael M. McManus, ng, cb 79, Lamar, cerebral traumatism.

RUSSELL COUNTY MEDICAL SOCIETY—Tuscaloosa, 1877.

OFFICERS.

President, A. R. Allen; Vice-President, John Paschal; Secretary, W. B. Prather; Health Officer, W. B. Prather. Censors—T. A. Johnson, W. B. Prather, A. R. Allen, G. D. Paschal, J. P. Norris.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Allen, Arthur Redding, mc Atlanta 96, cb 98, Oswichee.
Echols, Moses Mason, mc Alabama 97, cb Macon 97, Girard.
Gann, William F., mc univ Louisville 94, cb Pike 94, Crawford.
Hendrick, Frank Gustavus, mc univ Louisville 94, cb Pike 94, Crawford.
Jenkins, Eddie Wise, mc Bellevue —, cb 99, Girard.
Johnson, Thomas Abner, mc univ Tennessee 80, cb 83, Jernigan.
Joiner, William Thomas, mc Atlanta 91, cb 91, Pittsboro.
Norris, John Pinkney, mc Atlanta 91, cb 91, Uhland.
Paschal, George Dennis, mc univ New York 72, cb 87, Hurtsboro.
Paschal, John, mc Atlanta 98, cb 98, Glennville.
Prather, William Butler, mc Atlanta 74, cb 88, Seale.
Smith, Reuben Arnold, mc univ New York 52, cb 87, Hatchechubbee.
Total, 12.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Hendrick, Walter Branham, mc univ Louisville 90, cb Pike 90, Hurtsboro.

Howard, Thomas Watson, ng, cb 88, Girard.

Pennington, James Cincinnatus, mc univ Tennessee 94, cb Pike 94, Hatchechubbee.

Phillips, Lovic Wynn, mc univ Tulane —, cb —, Columbus, Ga.

Prather, Robert Clark, mc Alabama 98, cb —, Girard.

Total, 5.

Moved into the county—James Cincinnatus Pennington, from Orion, Pike county, to Hatchechubbee.

SHELBY COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, W. S. DuBose; Vice-President, E. C. Parker; Secretary, R. H. Hargrove; Treasurer, J. R. Morgan; Health Officer, J. H. Gunn. Censors—J. R. Morgan, J. H. Williams, E. G. Givhan, W. S. DuBose, E. C. Parker.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

DuBose, Wilds Scott, mc Atlanta 58, cb 78, Columbiana.

Ellsberry, John Payne, mc univ Virginia 60, cb Montgomery 84, Helena.

Givhan, Edgar Gilmore, mc Alabama 94, cb Chilton 94, Montevallo.

Gunn, James Hamlin, mc Bellevue 69, cb 78, Calera.

Hargrove, Robert Harris, mc univ Vanderbilt 81, Bellevue 86, cb Jefferson, 78, Calera.

Lane, Kenneth Fountain, mc Atlanta 95, cb Chilton 98, Montevallo.

McAdams, Henry Clay, mc Alabama 82, cb Mobile 82, Shelby.

Morgan, Joseph Reid, mc univ Louisville 66, cb 78, Shelby Springs.

Nelson, Thomas Green, mc univ National, Lebanon, O., 93, cb 93, Harpersville.

Oliver, Christopher Carlton, mc Atlanta 69, cb 78, Calera.

Parker, Edward Clifton, mc Tulane 99, cb 99, Shelby.

Smith, Garland Henry, mc Alabama 87, cb 90, Ganadarque.

Wilkinson, David Leonidas, mc univ Tulane 94, cb Autauga 94, Montevallo.

Williams, Hartwell Isaac, mc Alabama 87, cb 87, Columbiana.

Williams, John Harford, mc univ Louisville 75, cb 78, Columbiana.

Williams, William Claiborne, mc Alabama 1900, cb Mobile 1900, Shelby.

Total, 16.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Acker, James Wilson, old law, cb Tuscaloosa 78, Montevallo.
Batson, James Lucian, mc Kentucky S of M 1900, cb Fayette 1900, Gurnee.
Boyer, Joseph Buford, mc Kentucky S of M 92, cb 92, Wilsonville.
Chandler, Edward Pendleton, (old law), cb 79, Vincent.
Cunningham, J. C., m c—— —, cb —, Bridgeton.
Denson, Eli Forest, mc univ Vanderbilt 79, cb 79, Pelham.
Edwards, David W., mc Atlanta 66, cb 78, Wilsonville.
Fields, James G., (old law), cb 78, Wilsonville.
Griffin, Alphens J., (old law), cb 78, Lawley.
Hays, William S., mc Alabama 87, cb 87, Helena.
Horton, Andrew Wailes, mc Alabama 99, cb Shelby 1901, Pelham.
McAdams, Henry Clay, mc Alabama 82, cb Mobile 82, Shelby.
Smothers, B. H., mc —— —, cb —, Weldon.
Walker, Joseph Cobb, mc univ Nashville 1900, cb Blount 1900, Maylene.
Total, 14.

Retired—Jasper Goodson, (old law) cb Tuscaloosa 78, Siluria; Allen Edward McGraw, mc univ Louisiana 73, cb 78, Vincent.

Moved into the county—Alse Wilson Bell, from Weavers, Calhoun county to Vincent; John B. Ware, from Kelley's Creek, St. Clair county, to Vincent.

Moved out of the county—Joseph Madison Johnson, from Pelham to Jemison, Chilton county.

Examinations—Charles T. Acker, mc Birmingham, 1900, certificate granted; Robert Samuel Glasgow, mc univ of South, 1900, certificate granted; Andrew Wailes Horton, mc Alabama 99, certificate granted; Joseph S. Willmeier, Louisville H. M. C., 1900, certificate granted.

ST. CLAIR COUNTY MEDICAL SOCIETY—Eufaula, 1878.

OFFICERS.

President, J. T. Brown; Vice-President, R. L. McClellan; Secretary, E. A. Harris; Treasurer, E. A. Harris; Health Officer, J. W. Ash. Censors—J. W. Ash, J. T. Brown, J. H. Martin, W. A. Beason, R. L. McClellan.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ash, John Winston, mc univ Tulane 80, cb 80, Springville.
Bass John Burrell, mc phy and surg Baltimore 70, cb 78, Ashville.
Beason, William A., mc phy and surg Baltimore 93, cb 93, Ashville.
Brown, Jackson Tucker, mc Birmingham 97, cb 98, Riverside.
Cason, Davis Elmore, mc univ Nashville 70, cb 78, Ashville.

Crump, Henry Green, ng, cb 78, Seddon.
Embry, James Carl, mc univ Georgia 89, cb 90, Cropwell.
Garlington, Henry Spright, mc Alabama 87, cb Etowah 87, Ragland.
Gray, JesseAlonzo, mc —— —, cb —, Eden.
Harris, Esau A., mc univ of the South 99, cb 99, Coal City.
Hawkins, James Pinkney, mc Chattanooga 94, cb 99, Clear Springs.
Laney, Marcus W., mc univ Vanderbilt 94, cb 1900, Eden.
McLaughlin, James Madison, mc ——— —, State Board 80, Springville.
McClellan, Robert Lee, mc Alabama 97, cb 97, Easonville.
Martin, John Howard, mc Alabama 99, cb Blount 99, Springville.
Turner, James Perry, mc Birmingham 1900, cb 1900, Cropwell.
Vandergrift, Washington Frank, mc univ Tulane 80, cb 80, Branchville.
Wheeler, Thomas Tyler, mc Chattanooga 1900, cb Cleburne 1900, Steel's Depot.

Total, 18.

Honorary Members.

Crump, James Wells, mc Atlanta 75 ,cb St. Clair 78, Steel's Depot.
Cason, James Calvin, mc Memphis 85, cb 85, Coal City.
Jones, James Henry, mc —— —, cb Calhoun 78, Ragland.

Total, 3.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Alverson, Robert F., mc Alabama 93, cb 93, Coal City.
Hamilton, Charles Henry, ng, cb Calhoun 79, Pell City.
Spinks, J. M., mc —— —, bc —, Ragland.

Total, 3.

Moved into the county—J. M. Spinks, from —— to Ragland; T. T. Wheeler, from Cleburne county to Steel's Depot.

Moved out of the county—John B. Ware, from Kelly's Creek to Vincent, Shelby county.

Examinations—Marcus W. Laney, certificate granted; James Perry Turner, mc Birmingham 1900, certificate granted.

SUMTER COUNTY MEDICAL SOCIETY—Mobile, 1876

OFFICERS.

President, W. J. McCain; Vice-President, T. J. Bickley; Secretary, D. S. Brockway; Treasurer, D. S. Brockway; Health Officer, D. S. Brockway. Censors—D. S. Brockway, M. B. Cameron, T. J. Bickley, W. J. McCain, A. L. Vaughan.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bancroft, Joseph Dosier, mc univ Vanderbilt 94, cb 94, Sumterville.
Bickley, Thomas Jefferson, mc univ Vanderbilt 81, cb 81, Gainesville.

Brockway, Dudley Samuel, mc Jefferson 81, cb 81, Livingston.
Cameron, Mathew Bunyan, mc Alabama 86, cb 86, Sumterville.
Gilmore, John Neil, mc New York —, cb 78, Gaston.
Hale, Robert Hadden, mc univ Louisville 79, cb 80, York.
Kimbrough, T. G., mc Alabama 98, cb 98, Coatopa.
McCain, William Jasper, m cAlabama 91, cb 91, Livingston.
Parham, John Calhoun, mc S of M Kentucky 77, cb 78, Gainesville.
Reed, John H. G., mc univ Louisville 90, Epps.
Scales, John Patton, mc univ Louisville 97, cb 98, Brewersville.
Shamberger, William Brantley, mc univ Louisville 84, cb Choctaw 85, Rosser.
Shaw, Robert Eugene, mc Alabama 97, cb Mobile 97, Epps.
Stallsworth, F. B., mc Alabama 99, cb 99, Cuba.
Vaughan, Amos Lemuel, mc univ Louisville 84, cb 84, Cuba.
Total, 15.

Honorary Members.

James, William Hamilton, mc —, cb 78, York.
Sholl, Edward Henry, mc Pennsylvania 56, cb 78, Birmingham.
Ward, Henry Bascom, mc Alabama 78, cb 78, Cuba.
Total, 3.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carr, Paul Ellington, mc univ Louisville 91, cb 91, Warsaw.
Harris, Evan P., mc univ Louisville 69, cb 78, Rosser.
Hearn, William Thomas, mc univ Louisville 82, cb 82, York.
Nash, James Loney, mc univ Louisville 80, cb 80, Livingston.
Shaw, Robert Wilbur, mc Alabama 1900, cb Washington 1900, Epps.
Total 5.

Moved into the county—Robert Wilbur Shaw, from Washington county to Epps.

Examinations—Robert Ellyson Harwood, mc Alabama, certificate granted; Duke Price Jones, mc Alabama 1900, certificate granted; Dudley Stevens, univ Nashville 1900, certificate granted; William Henry Stevens, mc Meharry 1900, certificate granted.

TALLADEGA COUNTY MEDICAL SOCIETY—Anniston, 1886.

OFFICERS.

President, B. B. Simms; Vice-President, J. S. McCants; Secretary, W. G. Harrison; Treasurer, E. P. Cason; Health Officer, W. G. Harrison. Censors—J. T. Harrison, George A. Hill, B. B. Simms, S. W. Welch, J. S. McCants.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Barker, Erastus Thomas, mc Memphis 99, cb Cleburne 99, Eastaboga.

Bishop, Wallace Reverdy, ng, State Board 95, Talladega.

Caffey, Hugh T., mc ——, cb —, ———.

Cason, Eugene P., mc Alabama 90, cb St. Clair 90, Talladega.

Craddock, Felix Hood, mc univ Vanderbilt 95, cb 95, Sylacauga.

Dixon, John, mc Jefferson 56, cb 86, Fayetteville.

Harris, Daniel Blake, mc Atlanta Southern 97, cb Clay 98, Munford.

Harrison, John Tinsely, mc Atlanta 81, cb 86, Talladega.

Harrison, William Groce, mc univ Maryland 92 cb 92, Talladega.

Heacock, John William, mc univ Louisiana 66, cb 86, Alpine.

Hill, George Armstrong, mc Jefferson 70, cb 86, Wynette.

Hutchinson, W. H., mc Chattanooga 93, cb St. Clair 97, Childersburg.

Kent, T. J., mc Alabama 97, cb Coosa 97, Fayetteville.

McCants, John Samuel, mc Atlanta 66, cb 86, Talladega.

Powell, Thomas Jefferson, mc univ Maryland 66, cb 86, Childersburg.

Pugh, Braxton Bragg, mc Alabama 89, cb Clarke 98, Ironaton.

Simms, Benjamin Brit, mc Jefferson 85, cb Coosa 86, Talladega.

Sims, Albert Gallatin, mc univ Nashville 69, cb 86, Renfro.

Smith, Joseph Marshall, mc Alabama 1900, cb Coosa 1900, Sylacauga.

Thetford, William Fletcher, mc univ Louisiana 67, cb Greene 78, Talladega.

Welch, Samuel Wallace, mc phy and surg Baltimore 93, cb 93, Talladega.

Wrenn, Edward Bailey, mc Alabama 90, cb 90, Talladega.

Total, 22.

Honorary Members.

Hendricks, Humphrey Green, mc Philadelphia 52, cb 86, Talladega.

Stockdale, John Lark, mc South Carolina 54, cb 86, Boswell.

Taylor, William, mc Louisiana 52, cb 86, Tallageda.

Vandiver, John Harrington, mc Jefferson 45, cb 86, Talladega.

Welch, William Americus, mc Jefferson 48, cb 86, Alpine.

Total, 5.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bailey, Robert Emmett, mc Atlanta 66, cb 86, Silver Run.

Brooks, Alpheus Olin, mc Atlanta Southern 87, cb Clay 87, Lincoln.

Castleberry, William Trice, mc Georgia 72, cb 86, Lincoln.
Coker, Marion Jackson, ng, cb Clay 87, Sylacauga.
Colvin, James Pickett, mc Kentucky S of M 91, cb Macon 91, Lincoln.
Conway, Magnus Eli, mc univ Vanderbilt 88, cb 88, Sylacauga.
Donaldson, John Thaddeus, mc South Carolina 67, cb 86, Eastaboga.
Harris, Daniel Blake, mc Atlanta Southern 97, cb Clay —, Munford.
Pearson, James Emmett, mc Alabama 88, diploma recorded, Sylacauga.
Prescott, William Earnest, mc Birmingham 1900, cb Chilton 1900, Alpine.
Pruett, E. J., mc Memphis —, cb Clay —, Sylacauga.
Sorrel, William Henry, ng cb 82, Sylacauga.
Whitten, Edgar Hinton, mc Alabama 88, cb 89, Munford.
Total, 13.

Moved into the county—J. M. Smith, from Coosa county to Sylacauga; W. E. Prescott, from Chilton county to Alpine.

Moved out of the county—Bushrod Foley Laird, from Talladega to Covington, Ky.; William Thomas Hamilton, from Talladega to Tallapoosa county; John W. Grimes, from —— to Coosa county; William Henry Harrison, from Kymulga to Barbour county.

TALLAPOOSA COUNTY MEDICAL SOCIETY—Selma. 1879.

OFFICERS.

President, J. P. Motley; Vice;-President, H. S. Bruce; Secretary, A. LaF. Harlan; Treasurer, R. V. Salmon; Health Officer, A. LaF. Harlan. Censors—J. A. Goggans, A. J. Coley, R. V. Salmon, A. LaF. Harlan, H. T. Hamner.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Bruce, Homer S., mc Atlanta 91, cb Chambers 91, Camp Hill.
Carleton, William George, mc univ Vanderbilt 82, cb 82, Dudleyville.
Coley, Andrew Jackson, mc Jefferson 80, cb 81, Alexander City.
Goggans, James Adrian, mc univ New York 77, cb 82, Alexander City.
Griffin, James Olin, mc Alabama 1900, cb Clay 1900, Hackneyville.
Hamner, Harper Talliaferro, mc univ Vanderbilt 89, cb Chambers 90, Camp Hill.
Harlan, Aaron LaFayette, mc Alabama 86, cb 86, Alexander City.
Harlan, John James, mc Alabama 72, cb 82, Dadeville.

Hart, Eugene Walker, mc Baltimore 91, cb 91, Walnut Hill.
Langley, O. V., mc Atlanta 95, cb 96, Camp Hill.
Lightfoot, Robert W., mc South Carolina 62, cb 82, Alexander City.
McLendon, Joseph Wyley, mc Jefferson 88, cb 88, Dadeville.
McLendon, Henry Leonidas, univ of South 99, cb Chambers 1900, Hackneyville.
Motley, J. P. mc univ Atlanta Southern 86, cb 86, Motley.
Nolen, Abner Jackson, mc Louisville 80, cb Coosa 82, New Site
Nolen, Isaac Daniel, mc univ Louisville 92, cb Coosa 92, New Site.
Radford, George Clements, ng, cb Clay 87, Bulgers.
Reagan, Onslow, ng, cb 82, Alexander City.
Salmon, Robert Vaughn, mc Alabama 75, cb 82, Dadeville.
Shepard, Orlando Tyler, mc Graffenburg 54, cb 82, Tohopeka.
Smith, Watt Francis, mc Graffenburg 54, cb 82, Thaddeus.
Street, Thos. Hezekiah, mc Jefferson 1900, cb 1901, Alexander City.
Vines, George Washington, mc univ Tulane 72, cb 82, Dadeville.
Ward, Lucius Cincinnatus, ng, cb 82, Daviston.

Total, 24.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Banks, Joseph W., mc Alabama 90, cb —, Jackson's Gap.
Langley, W. T., mc Alabama 99, cb 99, Camp Hill.
Shepard, Philip Madison, mc Graffenburg 54, cb 82, Dadeville.
Spier, Alfred Alexander, ng, cb 80, Dudleyville.

Total, 4.

Moved into the county—James Olin Griffin, from Millerville, Clay county, to Hackneyville; Henry Leonidas McLendon, from Chambers county to Hackneyville.

Examinations—Thomas H. Street, Jefferson mc 1900, certificate granted.

TUSCALOOSA COUNTY MEDICAL SOCIETY—Birmingham, 1877.

OFFICERS.

President, W. M. Faulk; Vice-President, Sydney Leach; Secretary, T. M. Leatherwood; Treasurer, T. M. Leatherwood; Health Officer, Robert Neilson. Censors—J. L. Fant, G. R. Rau, Sydney Leach, W. G. Somerville, T. M. Leatherwood.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Fant, Joseph Louis, mc South Carolina 76, cb Marengo 78, Tuscaloosa.
Faulk, William Mark, mc Alabama 97, cb Barbour 97, Tuscaloosa.
Fitts, Alston, mc Phys and Surg New York 95, cb 1900, Tuscaloosa.

Hitchcock, Matthew Sims, mc univ Louisville 93, cb Dallas 93, Brookwood.
Jackson, Robert Dandridge, mc South Carolina 51, cb Dallas 78, Brookwood.
Leach, Sydney, mc univ Virginia 96, cb 97, Tuscaloosa.
Leatherwood, Timothy Miles, mc Alabama 91, cb 91, Tuscaloosa.
Lee, John Andrew, mc univ Vanderbilt 87, cb Pickens 97, Tuscaloosa.
Little, John, mc univ Louisiana 69, cb 78, Tuscaloosa.
Malloy, Martin Luther, mc Alabama 99, cb Lee 99, Tuscaloosa.
Mayfield, Surry Foster, mc univ Tulane 96, cb 96, Northport.
Nichols, Andrew Berry Cook, mc univ Philadelphia 69, cb 78, Tuscaloosa.
Patton, Madison Knox, mc Tulane 91, cb Greene 91, Fosters.
Rau, George Reneau, mc univ of the South (Sewanee) 94, cb —, Tuscaloosa.
Russel, James W., mc Louisville 76, cb —, Tuscaloosa.
Searcy, James Thomas, mc univ New York 67, cb 78, Tuscaloosa.
Somerville, William Glassell, mc phys and surg New York 89, cb 89, Tuscaloosa.
Trimm, James Lewis, mc Alabama 81, cb 81, Northport.
Taylor, William Thomas, mc Alabama 93, cb Greene 93, Hickman.
Williamson, James Lewis, mc Alabama 81, cb 81, Tuscaloosa.
Ward, John Hester, mc univ of the South (Sewanee) 99, cb 1900, Cottondale.
Ward, Walter R., mc Birmingham 1900, cb 1900, Tidewater.
Total, 22.

Honorary Member.

Neilson, Robert, mc univ Georgia 51, cb 78, Tuscaloosa.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Black, ——, mc —, cb —, Goethite.
Caldwell, Washington Jackson, ng, cb 84, Hull.
Cannon, Daniel Pugh, mc univ Vanderbilt —, cb Bibb 95, Coaling.
Cross, Thomas, mc univ Vanderbilt —, cb —.
Donaho, John, mc ——— —, cb —, Elbert.
Foster, Ezra, ng, cb 78, Brookwood.
Olive, George Washington, mc Alabama 82, cb 83, New Lexington.
Sellers, E. M., mc ——— —, cb —, Milldale.
Smothers, Wm. Jonas, mc Alabama —, cb —, Moore's Bridge.
Smothers, Lee, mc Alabama 99, cb —, Moore's Bridge.
Toomey, Mark Anthony, ng, cb 78, Pearl.
Weaver, George Augustus, (col.) mc univ Howard 97, cb Tuscaloosa 98, Tuscaloosa.

Wilkinson, J. G., mc —, cb —, Humphrey.

Total, 13.

Moved into the county—Alston Fitts, from New York to Tuscaloosa.

Moved out of the county—W. B. Doughty, from Falls to Fayette, Fayette county; P. L. Hagler, from Tuscaloosa to Ensley, Jefferson county; J. W. Russey, from Tuscaloosa to Bibb county.

Examinations—Walter R. Ward, certificate granted; Alston Fitts, certificate granted.

Death—Alsey Clements, Vance.

WALKER COUNTY MEDICAL SOCIETY—Mobile, 1876.

OFFICERS.

President, J. A. Goodwin; Vice-President, G. S. Guilder; Secretary, D. M. Davis; Treasurer, D. M. Davis; Health Officer, A. M. Stovall. Censors—J. A. Goodwin, A. M. Stovall, C. B. Jackson, D. M. Davis, J. M. Miller.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Ballenger, Joseph William, mc univ Vanderbilt 84, cb Cullman 87, Carbon Hill.

Camak, David Hubbard, old law 71, cb 84, Jasper.

Davis, Daniel M., mc Atlanta 94, cb 94, Cordova.

Deweese, Thomas Peters ,mc univ Vanderbilt 85, cb 85, Gamble Mines.

Fleming, James A., mc Mobile 70, old law —, Horse Creek.

Goodwin, Joseph Anderson, mc Alabama 74, cb 78, Jasper.

Gravlee, William Lewis, mc univ Nashville 82, cb 82, Patton Junction.

Guilder, George S., mc Alabama 94, cb 94, Galloway.

Hendon, Albert Lucretius, old law 78, cb 78, Townley.

Jackson, Charles Beuford, mc Atlanta 85, cb Tallapoosa 85, Horse Creek.

Manasco, John, old law 76, cb 81, Townley.

Manasco, Titus, mc Memphs Hospital 96, cb 96, Townley.

Miller, John M., mc univ Vanderbilt 85, Cordova.

Odum, James Newton, mc Memphis Hospital 94, cb 94, America.

Rosamond, William Cooper, old law, 55, cb 81, Jasper.

Stovall, Andrew McAdams, mc Louisville 80, cb 81, Jasper.

Whitfield, Bryan Watkins, mc univ Pennsylvania 53, cb Marengo 79, Nauvoo.

Woodson, John A., mc univ Vanderbilt 92, cb 93, Coal Valley.

Total, 18.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dearth, James Kitridge, ng, cb 88, Jasper.
Gallagher, Larkin, mc Alabama 95, cb 95, Eldridge.
Garganus, William, mc Chattanooga 94, cb —, Oakman.
Lynn, John Wesley, mc Atlanta 60, cb 81, Carbon Hill.
Masterson, William T., mc univ Louisville 91, cb Franklin 91, Oakman.
Phillips, Alfred B., univ Vanderbilt 85, cb 85, Horse Creek.
Stephenson, Hugh Watson, mc Alabama 80, cb Lawrence 88, Oakman.
Woodson, Landon Aubry, univ Virginia 61, cb 91, Patton.
Whitney, O. H., mc Louisville 90, cb —, Fayette.
Total, 9.

Moved out of the county—Wm. H. Downing, from Cordova to —.

WASHINGTON COUNTY MEDICAL SOCIETY—Tuscaloosa, 1887.

OFFICERS.

President, F. A. Webb; Vice-President, J. W. Wood; Secretary, L. L. Duggar; Treasurer, L. L. Duggar; Health Officer, W. E. Kimbrough. Censors—F. A. Webb, John Gordon, Chas. LeBaron, C. W. McCannon.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Duggar, Llewellyn Ludwig, mc Alabama 98, cb Mobile 99, Fairford.
Gordon, John mc Ohio 66, cb 87, Healing Springs.
Kimbrough, William E., mc univ Alabama —, cb 87, Stephens.
LeBaron, Charles, mc Alabama 89, cb 96, Yellow Pine.
McCannon, Campbell Wallace, mc phy and surg Keokuk, Iowa 80, cb 96, Deer Park.
Shoemaker, Walton Worthy, mc Alabama 92, cb 92, Frankville.
Webb, Francis Asbury, mc Alabama 81, cb 91, Calvert.
Wood, John Wesley, mc univ Virginia 60, cb 87, Healing Springs.
Total, 8.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Woodcock, Burgett, Alabama 96, cb Mobile 97, Vinegar Bend.
Palmer, Dabney, mc ——— —, cb —, Leroy.
Total, 2.

Moved into the county—Burgett Woodcock, from Mobile to Vinegar Bend.

Examinations—Rowell Wilbur Shaw, mc Memphis Hospital 1900, certificate granted.

WILCOX COUNTY MEDICAL SOCIETY—Eufaula, 1887.

OFFICERS.

President, W. T. Purnell; Vice-President, A. B. Curtis; Secretary, J. C. Benson; Treasurer, J. C. Benson. Censors, L. E. Starr, D. F. Gaston, A. B. Curtis, T. W. Jones, J. H. Jones.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Adams, David, mc Georgia 68, cb 81, Pine Apple.
Benson, James C., mc Alabama 87, cb 87, Camden.
Burroughs, William M., mc univ Tennessee 91, cb Clarke 92, Pine Hill.
Cox, J. W., mc Alabama 95, cb 95, ————.
Curtis, Alonzo Bittle ,mc Alabama 78, cb 82, Lower Peach Tree.
Curtis, Christopher Columbus, mc Alabama 82, cb 82, Lower Peach Tree.
Dale, William Bonner, mc univ Louisiana 61, cb 79 Rowell.
Gaston, David Finis, mc univ Louisiana 62, cb 82, Gastonburg.
Godbold, John Calhoun, mc Alabama ng, cb 79, Nellie.
Haddox, William Thomas, mc univ Louisiana 58, cb 79, Pine Hill.
Jones, John Paul, mc univ Louisiana 61, cb 79, Camden.
Jones, Joseph Harvey, mc univ Louisville 80, cb 82, Oak Hill.
Jones, Thomas Warburton, mc phy and surg New York 90, cb 90, Camden.
Jenkins, Thomas Griffin, mc univ Louisiana 48, cb 79, Camden.
Kilpatrick, Rufus Hall, mc Alabama 88, cb 88, Camden.
Kimbrough, John Henry, mc Alabama 94, cb 94, Catherine.
Kimbrough, Franklin Flavius, mc Alabama 90, cb 90, Arlington.
Lee, Thomas, mc South Carolina 57, cb 80, Furman.
Purifoy, John Howard, mc Jefferson 59, cb 81, Furman.
Purnell, William Thomas, mc Alabama 76, cb 79, Prairie.
Ramsey, David Wardlaw, mc univ Louisiana 70, cb 78, Pine Apple.
Spurlin, George Green, mc univ Louisiana 92, cb 92, Camden.
Starr, Lucius Ernest, mc Alabama 61, cb Bibb 68, Camden.
Spier, Phillip Van Buren, mc Alabama 1900, cb 1900, Furman.

Total, 24.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cole, William W., mc univ Pennsylvania 50, cb 79, Snow Hill.
Cook, Samuel Benjamin H., ng, cb 85, Pine Hill.
Hawthorne, Samuel McC., mc Alabama 89, cb 89, Pine Apple.
King, Edward Doak, mc ——— —, cb 84, Lower Peach Tree.

Lee, John Francis, mc univ Nashville 80, cb 83, Allenton.
McWilliams, E. C., mc ——— —, cb —, Oak Hill.
Total, 6.

Examinations—Phillip Van Buren Spier, mc Alabama 1900, certificate granted.

WINSTON COUNTY MEDICAL SOCIETY—Montgomery, 1888.

OFFICERS.

President, J. A. McCullar; Vice-President, A. S. Palmer; Secretary, W. E. Howell; Treasurer, W. E. Howell; Health Officer, J. C. Taylor. Censors—J. C. Taylor, A. S. Palmer. J. A. McCullar, W. E. Howell.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Howell, William Edward, mc Birmingham 1900, cb 1900, Haleyville.
Johnson, Harvey Caloway, old law, 85, cb 85, Nauvoo.
McCullar, James Alexander, mc univ Vanderbilt 99, cb 99, Double Springs.
Palmer, Alexander S., ng, cb Marion 89, Haleyville.
Taylor, Joseph Calhoun, mc Alabama 88, cb 89, Haleyville.
Total, 5.

PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adkins, William Riley, old law, cb Tuscaloosa 78, Double Springs.
Bonds, William Riley, mc Alabama 92, Double Springs.
Dennis, D. R., ng, Addison.
Ezell, E. F., mc ——— —, cb —, Lynn.
Hood, John Wesley, old law, cb 90, Addison.
Roden, Benjamin Wesley, old law, cb Marion 89, Haleyville.
Self, — —, mc Chattanooga 1900, cb —, ————.
Wilborn, Thomas P., mc ——— —, cb —, ———.
Total, 8.

Moved out of the county—Christian Zimmer Corns, from Delmar to Jefferson county.

Examinations—William Edward Howell, mc Birmingham 1900, certificate granted; A. Costa Watts, mc Louisville 1892, certificate granted.

ROLL OF THE COLLEGE OF COUNSELLORS.

REVISION OF 1901.

THE GRAND SENIOR LIFE COUNSELLORS.

Abernathy, William Henry, Flomaton—Montgomery session....1875
Cason, Davis Elmore, Ashville—Huntsville session.....1880
Fletcher, Richard Matthew, Huntsville—Montgomery session..1881
Furniss, John Perkins, Selma—Mobile session.....1876
Gaines, Vivian Pendleton, Mobile—Selma session.....1879
Gaston, John Brown, Montgomery—Montgomery session.....1875
Hayes, Robert Hughes, Union Springs—Huntsville session.....1880
Hogan, Samuel Mardis, Montgomery—Montgomery session.....1875
Jackson, Robert Dandridge, Brookwood—Tuscaloosa session....1873
Jackson, Walter Clark, Montgomery—Tuscaloosa session.....1873
Jones, Capers Capehart, East Lake—Montgomery session 1881
Ketchum, George Augustus, Mobile—Tuscaloosa session.....1873
McKittrick, Adam Alexander, Evergreen—Tuscaloosa session...1873
Michel, Richard Frazer, Montgomery—Tuscaloosa session.....1873
Prince, Frances Marion, Bessemer—Birmingham session.....1877
Robertson, Thaddeus Lindley, Birmingham—Montgomery session 1881
Sanders, William Henry, Mobile—Eufaula session 1878
Starr, Lucius Ernest, Camden—Selma session.....1874
Sholl, Edward Henry, Birmingham—Huntsville session.....1880
Thetford, William Fletcher, Talladega—Montgomery session....1881
Thomas, James Grey, Mobile—Huntsville session 1880
Total, 21.

THE GRAND SENIOR COUNSELLORS.

Baldwin, Benjamin James, Montgomery—Anniston session.....1886
Bragg, Shirley, Montgomery—Greenville session.....1885
Brockway, Dudley Samuel, Livingston—Mobile session.....1882
Coley, Andrew Jackson, Alexander City—Huntsville session....1891
DeWeese, Thomas Peters, Gamble Mines—Birmingham session..1894
Franklin, Charles Higgs, Union Springs—Mobile session.....1882
Goggans, James Adrian, Alexander City—Birmingham session..1883
Goode, Rhett, Mobile—Mobile session.....1889
Goodwin, Joseph Anderson, Jasper—Mobile session.....1882
Harlan, John Jefferson, Hackneyville—Montgomery session....1888
Hill, Luther Leonidas, Montgomery—Montgomery session.....1888
Huggins, Jacob, Newbern—Selma session 1884
Jones, Capers Capehart, East Lake—Montgomery session.....1881

Inge, Henry Tutwiler, Mobile—Greenville session.....1885
Jay, Andrew, Evergreen—Mobile session.....1882
Kendrick, Joel Cloud, Greenville—Mobile session 1889
LeGrand, John Clark, Birmingham—Mobile session.....1889
Lowry, Samuel Hickman, Huntsville—Greenville session.....1885
Maréchal, Edwin Lesley, Mobile—Mobile session.....1889
Nolen, Abner Jackson, New Site—Anniston session.....1886
Redden, Robert James, Sulligent—Tuscaloosa session.....1887
Searcy, James Thomas, Tuscaloosa—Selma session.....1884
Sledge, William Henry, Mobile—Mobile session.....1882
Stovall, Andrew McAdams, Jasper—Mobile session.....1882
Trent, Powhatan Green, Roanoke—Selma session.....1884
Whaley, Lewis, Birmingham—Anniston session.....1886
Wheeler, William Camp, Huntsville—Montgomery session.....1888
Wilkerson, Wooten Moore, Montgomery—Birmingham session..1883
Wilkerson, Charles A., Marion—Birmingham session.....1890

Total, 28.

THE SENIOR COUNSELLORS.

Andrews, Glenn, Montgomery—Selma session.....1893
Bell, Walter Howard, Oxford—Birmingham session.....1894
Blake, Wyatt Heflin, Wetumpka—Montgomery session.....1892
Bondurant, Eugene DuBose, Mobile—Birmingham session.....1894
Brown, George Summers, Birmingham—Birmingham session..1894
Cameron, Matthew Bunyan, Sumterville—Selma session.....1893
Cunningham, Russell McWhorter, Birmingham—Selma session..1893
Davis, William Elias Brownlee, Birmingham—Mobile session..1895
Desprez, Louis Willoughby, Russellville—Mobile session.....1895
Duggar, Reuben Henry, Gallion—Montgomery session.....1892
Frazer, Tucker Henderson, Mobile—Mobile session.....1895
Gay, Samuel Gilbert, Selma—Selma session.....1893
Harper, Robert Franklin, Ozark—Birmingham session.....1894
Harrison, William Groce, Talladega—Montgomery session.....1896
Heflin, Wyatt, Birmingham—Selma session.....1893
Hill, George Armstrong, Wynette—Birmingham session.....1894
Hunter, Henry Mitchell, Union Springs—Selma session.....1893
Howle, James Augustus, Jordan—Mobile session.....1895
Jones, Julius, Rockford—Montgomery session.....1896
Johnston, Louis William, Tuskegee—Mobile session.....1895
King, Goldsby, Selma—Selma session 1893
McCants, Robert Beall, Demopolis—Selma session.....1893
McLaughlin, James Madison, Springville—Birmingham session..1894
Moody, Henry Altamont, Bailey Springs—Birmingham session..1894

Moon, William Henry, Goodwater—Selma session 1893
Parke, Thomas Duke, Birmingham—Selma session.....1893
Perry, Henry Gaither, Greenville—Birmingham session.....1894
Quin, William Everett, Fort Payne—Birmingham session.....1894
Riggs, Edward Powell, Birmingham—Birmingham session.....1894
Robinson, Thomas Franklin, Bessemer—Montgomery session....1896
Sutton, Robert Lee, Orrville—Mobile session.....1895
Swann, Joseph Charles, Wedowee—Mobile session.....1895
Williams, John Harford, Columbiana—Birmingham session....1894
Waller, George Platt, Montgomery—Montgomery session.....1896
Watkins, Isaac LaFayette, Montgomery—Selma session.....1893
Whitfield, Bryan Watkins, Demopolis—Montgomery session....1892
Whitfield, James Bryan, Demopolis, Montgomery session.....1896
Wilkinson, John Edward, Prattville—Montgomery session.....1892

Total, 38.

THE JUNIOR COUNSELLORS.

Ard, Erastus Byron, Ozark—Montgomery session.....1900
Bancroft, Joseph Dozier, Sumterville—Mobile session.....1899
Brannon, Henry Lee, Eufaula—Selma session 1897
Bennett, Benjamin Franklin, Clayton—Birmingham session....1898
Dixon, John, Fayetteville—Selma session 1897
Dryer, Thomas Edmund, Huntsville—Birmingham session.....1898
Gaston, Joseph Lucius, Montgomery—Mobile session.....1899
Green, Henry Bolling, Dothan—Montgomery session.....1900
Guice, Charles Lee, Gadsden—Mobile session.....1899
Harlan, Aaron LaFayette, Alexander City—Birmingham session.1898
Henderson, Stephen Cory, Brewton—Mobile session.....1899
Henley, Albert Thomas, Birmingham—Birmingham session....1898
Hill, Robert Sommerville, Montgomery—Birmingham session...1898
Jones, Eli Spears, Gadsden—Selma session.....1897
Justice, Robert Lee, Geneva—Montgomery session.....1900
Justice, Oscar Suttle, Wetumpka—Mobile session.....1899
Lawrence, William John Dougherty, Turkeytown—Montgomery session 1900
Maples, William Caswell, Scottsboro—Montgomery session.....1900
McCain, William Jasper, Livingston—Birmingham session.....1898
McEachern, John Adolphus, Brundidge—Selma session.....1897
Pearson, Benjamin Rush, Montgomery—Birmingham session...1898
Pride, William Thomas, Madison—Mobile session.....1899
Robertson, William Henry, Clayton—Montgomery session.....1900
Sims, Albert Gallatin, Renfro—Birmingham session.....1898
Tam, Silas Springer, Mobile—Montgomery session.....1900
Thigpen, Charles Alston, Montgomery—Montgomery session....1900

Welch, Samuel Wallace, Talladega—Mobile session.....1899
Wyman, Benjamin Leon, Birmingham—Selma session.....1897
Total, 28.

THE COUNSELLORS ELECT.

Appleton, Hugh Lowndes, Centre, Cherokee county.
Casey, Thaddeus Alonzo, Albertville, Marshall county.
Fleming, Porter Thomas, Enterprise, Coffee county.
Howell, John Robert Graves, Dothan, Henry county.
Jones, Thomas Warburton, Camden, Wilcox county.
Simms, Benjamin Britt, Talladega, Talladega county.
Somerville, William Glassell, Tuscaloosa, Tuscaloosa county.
Total, 7.

SUMMARY.

Grand Senior Life Counsellors	21
Grand Senior Counsellors	28
Senior Counsellors	38
Junior Counsellors	28
Counsellors-Elect	7
Active Counsellors	122

THE ROLL OF THE COLLEGE OF COUNSELLORS BY CONGRESSIONAL DISTRICTS.

[On this roll the names of Grand Senior Life Counsellors do not appear.]

On this roll the names of the counsellors are given by congressional districts. It is intended to serve as a guide in the election of new counsellors, with a view to the distribution of them in approximate proportion to the number of members in the several districts. It is not considered to be good policy, and it is not considered to be fair and right, to give a few large towns greatly more than their pro rata share of counsellors. The calculations are based on the nearest whole numbers.

THE FIRST DISTRICT.

Names of Counsellors.—**E. D. Bondurant, T. H. Frazer, R. Goode, H. T. Inge, E. L. Maréchal, R. B. McCants, W. H. Sledge, B. W. Whitfield, J. B. Whitfield, S. S. Tam,**

Choctaw,	**members**	**10**	**counsellors**	**0**
Clarke,	**"**	**19**	**"**	**0**
Marengo,	**"**	**18**	**"**	**3**
Mobile,	**"**	**42**	**"**	**7**
Monroe,	**"**	**13**	**"**	**0**
Washington	**"**	**8**	**"**	**0**
Totals		**110**		**10**

One counsellor to every nine members.

THE SECOND DISTRICT.

Names of Counsellors.—**G. Andrews, B. J. Baldwin, S. Bragg, L. L. Hill, R. S. Hill, A. Jay, J. A. McEachern, S. C. Henderson, J. L. Gaston, T. W. Jones, J. C. Kendrick, B. R. Pearson, C. A. Thigpen, G. P. Waller, I. L. Watkins, W. M. Wilkerson.**

Baldwin,	**members**	**7**	**counsellors**	**0**
Butler,	**"**	**14**	**"**	**2**
Conecuh,	**"**	**15**	**"**	**1**
Covington,	**"**	**6**	**"**	**0**
Crenshaw,	**"**	**17**	**"**	**0**
Escambia,	**"**	**11**	**"**	**1**
Montgomery,	**"**	**53**	**"**	**11**
Pike,	**"**	**15**	**"**	**1**
Wilcox,	**"**	**29**	**"**	**1**
Totals		**167**		**17**

One counsellor to every nine members.

THE THIRD DISTRICT.

Names of Counsellors.—E. B. Ard, B. F. Bennett, H. L. Brannon, P. T. Fleming, C. H. Franklin, R. F. Harper, H. M. Hunter, R. L. Justice, J. R. G. Howell, W. H. Robertson.

Barbour,	members	20	counsellors	3
Bullock,	"	20	"	2
Coffee,	"	12	"	1
Dale,	"	14	"	2
Geneva,	"	23	"	1
Henry,	"	23	"	1
Lee,	"	12	"	0
Russell,	"	12	"	0
Totals		136		10

One counsellor to every fifteen members.

THE FOURTH DISTRICT.

Names of Counsellors.—W. H. Bell, J. Dixon, S. G. Gay, W. G. Harrison, G. A. Hill, G. King, A. G. Sims, B. B. Simms, R. L. Sutton, J. H. Williams, S. W. Welch.

Calhoun,	members	19	counsellors	1
Chilton,	"	11	"	0
Cleburne,	"	14	"	0
Dallas,	"	30	"	3
Shelby,	"	16	"	0
Talladega,	"	22	"	7
Totals		112		11

One counsellor to every eleven members.

THE FIFTH DISTRICT.

Names of Counsellors.—A. J. Coley, J. A. Goggans, A. L. Harlan, J. J. Harlan, J. A. Howle, L. W. Johnston, J. Jones, W. H. Moon, A. J. Nolen, J. C. Swann, P. G. Trent, J. E. Wilkerson, O. S. Justice.

Autauga,	members	9	counsellors	1
Chambers,	"	14	"	0
Clay,	"	15	"	0
Coosa,	"	11	"	2
Elmore,	"	16	"	2
Lowndes,	"	15	"	0
Macon,	"	10	"	1
Randolph,	"	15	"	2
Tallapoosa,	"	24	"	5
Totals		129		13

One counsellor to every fourteen members.

THE SIXTH DISTRICT.

Names of Counsellors.—J. D. Bancroft, D. S. Brockway, M. B. Cameron, T. P. DeWeese, J. A. Goodwin, W. J. McCain, R. J. Redden, J. T. Searcy, W. G. Somerville, A. M. Stovall.

Fayette,	members	11	counsellors		0
Greene,	"	16	"		0
Lamar,	"	10	"		1
Marion,	"	14	"		0
Pickens,	"	9	"		0
Sumter,	"	15	"		4
Tuscaloosa,	"	22	"		2
Walker,	"	17	"		3
Totals		114			10

One counsellor to every fourteen members.

THE SEVENTH DISTRICT.

Names of Counsellors—H. L. Appleton, T. A. Casey, L. W. Desprez, E. S. Jones, J. M. McLaughlin, C. L. Guice, W. J. D. Lawrence.

Cherokee,	members	7	counsellors		1
Cullman,	"	14	"		0
DeKalb,	"	14	"		1
Etowah,	"	16	"		3
Franklin,	"	17	"		1
Marshall,	"	12	"		0
St. Clair	"	18	"		1
Winston,	"	5	"		0
Totals		103			7

One counsellor to every thirteen members.

THE EIGHTH DISTRICT.

Names of Counsellors—W. H. Blake, T. E. Dryer, S. H. Lowry, W. C. Maples, H. A. Moody, W. T. Pride, W. C. Wheeler.

Colbert,	members	12	counsellors		1
Jackson,	"	10	"		1
Lauderdale,	"	10	"		1
Lawrence,	"	14	"		0
Limestone,	"	15	"		0
Madison,	"	28	"		4
Morgan,	"	12	"		0
Totals		110			7

One counsellor to every ten members.

THE NINTH DISTRICT.

Names of Counsellors—G. S. Brown, R. M. Cunningham, W. E. B. Davis, R. H. Duggar, W. Heflin, A. T. Henley, J. Huggins, J. C. LeGrand, T. D. Parke, H. G. Perry, E. P. Riggs, T. F. Robinson, L. Whaley, C. A. Wilkerson, B. L. Wyman.

Bibb,	members.....	19	counsellors	1
Blount,	"	9	"	0
Hale,	"	17	"	4
Jefferson,	"	120..	"	9
Perry,	"	12	"	1
Totals		177.....		15

One counsellor for every eight members.

GENERAL SUMMARY.

The whole number of members in the state is 1,158, and the whole number of counsellors, exclusive of Grand Senior Life Counsellors, is 100. This gives one counsellor to every 11.58 members. For convenience, we say one counsellor for every eleven members, about.

The first district, with 110 members, and 10 counsellors, has the number to which it is entitled.

The second district, with 167 members, and 16 counsellors, has one counsellor less than it is entitled to.

The third district, with 136 members, and 10 counsellors, has two counsellors less than it is entitled to.

The fourth district, with 112 members, and 12 counsellors, has two counsellors less than it is entitled to.

The fifth district, with 129 members, and 13 counsellors, has five counsellors more than it is entitled to.

The sixth district, with 114 members and 10 counsellors, has the proper number it is entitled to.

The seventh district, with 103 members, and 7 counsellors, has two counsellors less than it is entitled to.

The eighth district, with 110 members, and 7 counsellors, has three counsellors less than it is entitled to.

The ninth district, with 177 members, and 15 counsellors, has one counsellor less than it is entitled to.

ROLL OF CORRESPONDENTS.

Revision of 1901.

Bozeman, Nathan, M. D., New York.....1899
Fletcher, R. M. Jr., M. D., Fort Harrison, Mont.....1900
Garnett, A. S., M. D., Hot Springs, Ark.....1875
Hoffman, John R., M. D., Athens, Ala.....1890
Mitchell, William A., M. D., Eufaula, Ala.....1891
Moses, Gratz A., M. D., St. Louis, Mo.....1874
Osborne, Thomas C., M. D., Claiborne, Texas.....1885
Peavy, Julius F., M. D., Ashville, N. C.....1899
Rorex, James Polk, M. D., Scottsboro, Ala.....1891

THE ROLL OF OFFICERS.

Revision of 1901.

PRESIDENT:

EDWIN LESLEY MARECHAL, M. D.....Mobile.

VICE-PRESIDENTS:

Senior—WILLIAM T. PRIDE, M. D.....Madison.
Junior—MATTHEW BUNYAN CAMERON, M. D.....Sumterville.

SECRETARY:

GEORGE PLATT WALLER, M. D.....Montgomery.
(Term expires 1903.)

TREASURER:

HENRY GAITHER PERRY, M. D.....Montgomery
(Term expires 1903.)

THE STATE BOARD OF CENSORS, ACTING AS A STATE BOARD OF MEDICAL EXAMINERS, AND AS A STATE COMMITTEE OF PUBLIC HEALTH.

Franklin, Charles Higgs, Union Springs.....1901-1906
Wilkerson, Wooten Moore, Montgomery.....1901-1906
Robertson, Thaddeus Lindley, Birmingham.....1900-1905
Gaines, Vivian Pendleton, Mobile.....1900-1905
Sholl, Edward Henry, Birmingham.....1899-1904
Andrews, Glenn, Montgomery 1899-1904
Searcy, James Thomas, Tuscaloosa.....1899-1903

Furniss, John Perkins, Selma.....1898-1903
Sanders, William Henry, (Senior Censor), Mobile.....1897-1902
Moody, Henry Altamont, Bailey Springs, (unexpired term) 1897-1902

ORATOR:

EDWARD BURTON WARD, M. D.....Selma.

ALTERNATE ORATOR:

LEWIS COLEMAN MORRIS, M. D.....Birmingham.

MONITOR:

JACOB HUGGINS, M. D.....Newberne.

HISTORIAN:

SAMUEL WALLACE WELCH, M. D.....Alpine.

JEROME COCHRAN LECTURER:

JOHN H. MUSSER, M. D.....Philadelphia, Pa.

STATE HEALTH OFFICER:

WILLIAM HENRY SANDERS, M. D.....Mobile.
(Official residence, Montgomery.)
(Term expires 1904.)

PLACE OF MEETING—BIRMINGHAM.
Time of Meeting, Third Tuesday in April, 1902.

SCHEDULE OF REGULAR REPORTERS.

SESSION OF 1901.

(1) GLENN ANDREWS, M. D., Montgomery, Ala.—
What Precautions Should be Taken to Prevent the Spread of Infectious Diseases?

(2) WILLIAM L. DINSMORE, M. D., Decatur, Ala.—
Uric Acid, a Factor in Disease Causation.

(3) T. JOSEPH DEAN, M. D., Union Springs, Ala.—
The Medicine and Surgery of the Future, from the Standpoint of Sanitation and Prevention.

(4) WILLIAM GROCE HARRISON, M. D., Talladega, Ala.—
Pneumonia, With Special Reference to Complications and Treatment.

(5) A. L. HARLAN, M. D., Alexander City, Ala.—
La Grippe in Alabama; Its Complications, Sequelae, and Treatment.

(6) HON. J. B. DUKE, LaFayette, Ala.—
The Relation of the Medical and Legal Professions.

(7) L. L. HILL, M. D., Montgomery, Ala.—
Cholelithiasis, with a Report of Cases.

(8) WILLIAM R. JACKSON, M. D., Mobile, Ala.—
Surgical Fevers.

(9) WILLIAM H. HUDSON, M. D., LaFayette, Ala.—
Recent Progress in Brain Surgery.

(10) S. C. HENDERSON, M. D., Brewton, Ala.—
Recent Progress in Our Knowledge of Malaria.

(11) F. GOODWIN DUBOSE, M. D., Selma, Ala.—
Cancer of the Breast, With Special Reference to the Treatment of Inoperable Cases.

(12) ROBERT D. JACKSON, M. D., Woodlawn, Ala.—
The Medical Treatment of Old Age.

(13) WYATT HEFLIN, M. D., Birmingham, Ala.—
Ectopic Gestation.

(14) J. B. KILLABREW, M. D., Mobile, Ala.—
The Toxaemia of Pregnancy.

(15) WILLIAM J. MCCAIN, M. D., Livingston, Ala. —
Haemorrhagic Malarial Fever.

(16) ROBERT J. REDDEN, M. D., Sulligent, Ala.—
The General Practitioner as a Gynecologist.

(17) EDGAR A. JONES, M. D., Birmingham, Ala.—
The Relation of the State to Tuberculosis.

(18) O. L. SHIVERS, M. D., Marion, Ala.—
Mastitis.

(19) THOMAS D. PARKE, M. D., Birmingham, Ala.—
What is the Cause of the Large Infantile Mortality in Alabama, and How can it be Obviated?

(20) J. D. S. DAVIS, M. D., Birmingham, Ala.—
Appendicitis.

SCHEDULE OF THE ANNUAL SESSIONS AND PRESIDENTS SINCE THE RE-ORGANIZATION IN 1868.

Selma—Albert Gallatin Mabry 1868
Mobile—Albert Gallatin Mabry.....1869
Montgomery—Richard Frazer Michel.....1870
Mobile—Francis Armstrong Ross.....1871
Huntsville—Thomas Childress Osborn.....1872
Tuscaloosa—George Earnest Kumpé.....1873
Selma—George Augustus Ketchum.....1874
Montgomery—Job Sobieski Weatherly.....1875
Mobile—John Jefferson Dement.....1876
Birmingham—Edward Davies McDaniel.....1877
Eufaula—Peter Bryce 1878
Selma—Robert Dickens Webb.....1879
Huntsville—Edmund Pendleton Gaines.....1880
Montgomery—William Henry Anderson.....1881
Mobile—John Brown Gaston.....1882
Birmingham—Clifford Daniel Parke.....1883
Selma—Mortimer Harvey Jordan.....1884
Greenville—Benjamin Hogan Riggs.....1885
Anniston—Francis Marion Peterson.....1886
Tuscaloosa—Samuel Dibble Seelye.....1887
Montgomery—Edward Henry Sholl.....1888
Mobile—Milton Columbus Baldridge.....1889
Birmingham—Charles Higgs Franklin.....1890
Huntsville—William Henry Sanders.....1891
Montgomery—Benjamin James Baldwin.....1892
Selma—James Thomas Searcy.....1893
Birmingham—Thaddeus Lindley Robertson.....1894
Mobile—Richard Matthew Fletcher.....1895
Montgomery—William Henry Johnston.....1896
Selma—Barckley Wallace Toole 1897
Birmingham—Luther Leonidas Hill.....1898
Mobile—Henry Altamont Moody 1899
Montgomery—John Clark LeGrand.....1900
Selma—Russell McWhorter Cunningham.....1901

THE SCHEDULE OF THE ANNUAL ORATORS.

Gaston, John Brown—Mobile session.....1869
Ketchum, George Augustus—Montgomery session.....1870
Anderson, William Henry—Mobile session.....1871
Weatherly, Job Sobieski—Montgomery session.....1872
Jordan, Mortimer Harvey—Tuscaloosa session.....1873
Seelye, Samuel Dibble—Selma session.....1874
Ketchum, George Augustus—Montgomery session.....1875
Michel, Richard Frazier—Mobile session.....1876
Fournier, Edmund Henry—Birmingham session.....1877
Riggs, Benjamin Hogan—Eufaula session.....1878
Mitchell, William Augustus—Selma session.....1879
Baker, Paul DeLacy—Huntsville session.....1880
Baldridge, Milton Columbus—Montgomery session.....1881
Bryce, Peter—Mobile session.....1882
Sholl, Edward Henry—Birmingham session.....1883
Sanders, William Henry—Selma session.....1884
Searcy, James Thomas—Greenville session.....1885
No oration delivered—Anniston session 1886
Huger, Richard Proctor—Tuscaloosa session.....1887
Baldwin, Benjamin James—Montgomery session.....1888
Coleman, Ruffin—Mobile session 1889
Inge, Henry Tutwiler—Birmingham session.....1890
Riggs, Edward Powell—Huntsville session.....1891
Wyman, Benjamin Leon—Montgomery session.....1892
Andrews, Glenn—Selma session.....1893
Blake, Wyatt Heflin—Birmingham session.....1894
Cunningham, Russell McWhorter—Mobile session.....1895
Maréchal, Edwin Lesley—Montgomery session.....1896
Hill, Robert Sommerville—Selma session.....1897
Harper, William Wade—Birmingham session.....1898
Chapman, George Clarence—Mobile session.....1899
Goode, Rhett—Montgomery session.....1900
Harrison, William Groce—Selma session.....1901

OBITUARY RECORD.

[Taken from Reports of the Secretaries of County Medical Societies.]

AUTAUGA COUNTY—Charles Alva Edwards, mc Memphis 49, cb 80, Prattville. Date and cause of death not stated.

BARBOUR COUNTY—Albert Goodwin, mc Louisville 73, cb 79, Eufaula. C. H. McDonald, mc Alabama 1900, Clio. Dates and causes of death not stated.

BIBB COUNTY—Jacob Usry Ray, Sr., old law 59, cb Tuscaloosa 82. Woodstock. John Wesley Jones, mc —— —, cb —. Randolph. Dates and causes of death not stated.

BLOUNT COUNTY—William Kings Clapp, old law. Gum Springs. Date and cause of death not stated.

BULLOCK COUNTY—Augustus Clayton Crymes, mc Jefferson 56, cb 80, Midway. William Bartlett Thomasson, mc Georgia 54, cb 80. Aberfoil. Dates and causes of death not stated.

BUTLER COUNTY—William Paners Grissett, mc —— 72, cb Monroe 84. Garland. Cause of death, consumption. Date of death, not stated.

CALHOUN COUNTY—Frederick Woodhull Buckalew, mc univ Grant 93, cb 95. DeArmanville. Phillip Pleasant Linder, cb 81. Jacksonville, C. C. McClintock. Dates and causes of death, not stated.

CHEROKEE COUNTY—C. Story, cb 86. Key. Cause of death, drowning.

CHOCTAW COUNTY—Ferdinand Payne Clarke, mc Alabama 84, cb Marengo 84. Beville. Died in September, 1900. Cause of death, not stated. William F. Kimbrough, mc Alabama. Pushmataha. Date and cause of death not stated.

COOSA COUNTY—William J. Peddy, mc Graffenburg 55, cb 83. Rockford. Died of valvular disease of heart in October, 1900. Age, 69.

CULLMAN COUNTY—W. A. McDonald, mc Georgia Reform 59, cb 89. Baileyton. Date and cause of death not stated.

DALLAS COUNTY—John Alexander McKinnon, mc univ Louisiana 67, cb 78. Selma. Died of nephritis. Date not given. Kenneth McKinnon, mc univ Louisiana 49, cb 78. Pleasant Hill. Date and cause of death not stated. John Alonzo Weissinger, mc Alabama 98, cb 98. Talmage. Cause of death, tuberculosis. Date not given.

DEKALB COUNTY—William Jones Wooten, cb 89. Musgrove. Date and cause of death not stated.

ELMORE COUNTY—Robert McCullough Hill, mc Alabama 94, cb 96. Ware. Cause of death, remittent fever. Date not given.

HALE COUNTY—Thomas Franklin Moore, mc Alabama, 91, cb Elmore 92. Stewarts. Died of acute dysentery in December, 1900. James Adams Tidmore, mc univ Kansas City 84, cb 89. Havana. Died of pneumonia in November, 1900.

HENRY COUNTY—Fleming Isaac Moody, mc phys and surg Baltimore 76, cb 83. Dothan. Cause of death, pneumonia. Date not given.

JACKSON COUNTY—T. H. Helton, cb 82. Caffey's Store. Cause of death, pneumonia. Date not given. Green Pryor McAffee, cb 82. Line Rock. Date and cause of death not given.

JEFFERSON COUNTY—John Gardiner Griggs, mc univ Pennsylvania 63, cb Macon 86. Birmingham. Died of apoplexy in October, 1900. George Clarence Chapman, mc univ Vanderbilt 90, cb Monroe 90. Birmingham. Killed by tornado, March 29, 1901.

LAUDERDALE COUNTY—William Epps Hardaway, mc univ Nashville 65, cb 87. Florence. Date and cause of death not given.

LOWNDES COUNTY—Abraham Cruzer McRea, mc univ Pennsylvania 50, cb 78. Lowndesboro. Samuel Taylor Peake, mc univ Vanderbilt 83, cb 83. Benton. Edwin Lewis Sanderson, mc Jefferson 57, cb 78. Letohatchie. Dates and causes of death not stated.

MACON COUNTY—William Alexander Reynolds, mc South Carolina 52, cb 79. Warrior Stand. Died January 11, 1901. Cause of death not stated. John Sistrunk, mc univ New York 59, cb 79. Society Hill. Date and cause of death not given.

MADISON COUNTY—William G. McKelvey, cb 88. Dallas Mills. Died in February, 1901, of suppurative hepatitis. Anthony Natalie Glover, mc univ Nashville 87, cb 87. Owens Cross Road. Date and cause of death not stated.

MARENGO COUNTY—Edmond Strudwick, mc Jefferson 57, cb 78. Dayton. Died of la grippe, May, 1900.

MARSHALL COUNTY—William M. Scarborough, cb Clay 87. Albertville. Date and cause of death not stated.

MOBILE COUNTY—Miles Edward McCarty, mc Alabama 78, cb 78. Whistler. Date and cause of death not stated.

MONTGOMERY COUNTY—Jesse Holmes Naftel, mc Alabama 87, cb 87. Montgomery. Thomas Alexander Means, mc Atlanta 57, cb 78. Montgomery. Dates and causes of death not stated.

PICKENS COUNTY—Samuel Johnston Sterling, mc Alabama 61, cb 78. Olney. Cause of death paralysis. Date not given. James Francis Barnett, mc Alabama 92, cb 92. Temple. Cause of death, angina pectoris. Date not given. Thomas Harlan McKinstry, mc Alabama 93, cb 93. Carrollton. Cause of death, pneumonia. Date not given.

RANDOLPH COUNTY—Michael M. McManus, cb 79. Lamar. Cause of death, cerebral Traumatism. Date not given.

TUSCALOOSA COUNTY—Alsey Clements, cb 78. Vance. Date and cause of death not stated.

THE APPENDIX

OF THE

Medical and Sanitary Dissertations

AND REPORTS.

THE ANNUAL ORATION.

By William Groce Harrison, M. D., Talladega.
Junior Counsellor of the Medical Association of the State of Alabama.

In the selection of a theme for this occasion, I am limited by certain well defined boundaries that one dares not over-leap. I am bounded on the North by a statute of our Constitution which requires that the "Annual Oration" shall be on a subject of mutual interest to the general public and Medical Profession; bounded on the East by the fact that thirty-one orations have preceded this occasion and have well nigh exhausted the more popular topics; I am bounded on the South by the fear and danger of being considered personal in my allusions; last and greatest, I am bounded on the West, *and on all sides* by the lamentable fact that I have no gift of oratory. Eight years ago it was the fortune of Dr. Glenn Andrews to address a Selma audience on a similar occasion. After searching the broad field for a suitable subject he selected drinking water, and, if memory fails not, you will recall how well he treated the theme. When all was over he is said to have been grievously disappointed to learn that water had scarcely been introduced into Selma as a beverage and was little known except to the clergy and a few of Mrs. Nation's followers. I give this as mere rumor. If the real facts were demonstrated, it might transpire that the accomplished orator didn't recognize water when he saw it.

Mr. Moody was accustomed to say that his audiences were distributive hearers. I naturally assume this one to possess a similar accomplishment.

In his humorous lecture, "Roasted Husbands on Toast," Dr. Edwin Hall was wise enough to specify every disparaging remark as applying to people in far away Alaska, and thus he escapes the aspersion of personalities to his audience.

With your permission, I shall speak of certain "Phases of Intemperance and their Relation to the Medical Profession."

In the popular mind, the word "Intemperance" enjoys the limited meaning—"habitual or excessive indulgence in alcoholic liquors."

Tonight we employ it in that broader sense as defined by Webster, "Any immoderate indulgence of appetites or passions."

Estimating that the population of the entire world is one and a half billions and the average human life is forty years, we can easily calculate that the average death rate for every minute both day and night is about seventy-two. Of this number one person dies every five seconds from some form of consumption. You will be surprised to hear—but it can be easily proven—that the various forms of intemperance destroy more than twice that number. I pause to emphasize that one individual must perish every three seconds from one or the other kinds of intemperance. Every nation has its special beverage, every township has its well known gourmand and I might say almost every family has a representative whose mind is clouded, health impaired, life shortened, by some form of excess. Intemperance respects neither caste nor creed. The helpless infant at its mother's breast, the sweet maiden just blushing into beauty, the man of forty-five bearing the burdens of life, and even tottering age, are all alike subject to this masterful passion.

Invading the princely palace, creeping through the half closed door of poverty's hovel, crossing the threshhold of our best statesmen and claiming its adherents from pulpit and forum, it over-strides all bounds of propriety and even infests "My Lady's Boudoir," to destroy domestic happiness and lay a predicate for enfeebling the vitality of another generation.

Moderation is the balance wheel of life, it is the handmaid of health—the veritable guardian of domestic joy, the essential essence of national peace. Excess is the instigator of discord and discontent, the attendant of want and woe, the escort of disease and death.

One kind of excess which afflicts most communities, outside of Dallas County, is intemperate speech. Beginning as a good natured jester, most innocent at first, the intemperate talker rapidly passes to the stage of gossip; from here 'tis but a step to slander and this is one of the most baneful and disrupting influences that can afflict any neighborhood—

"At every word a reputation dies."

It has severed the sacred bonds of life-long friendship; it has broken churches into warring factions; impaired the usefulness of ministers and destroyed the peace of whole communities.

Another species of intemperance which has afflicted us is the insane desire for Fashion. In one of his popular stories, Max O'Rell amusingly relates the origin and rapid spread of the high hand shake.

On one occasion he had baggage strapped and ticket purchased to leave Paris for a voyage to America. There was some kind of a fashionable entertainment in the public garden that night at which the members of the old royal family were prominent guests. Some enterprising reporters observed a countess shake hands with a gentleman friend over a leaning rose bush. To accomplish this feat she had to raise her hand almost to the level of her brow. The novelty of the act struck the reporter as interesting and the following day every fashionable Parisian was seen to greet his friend with a handshake as high as his chin. Mr. O'Rell sailed on that evening and tells with much good humor how the sad goodbyes were punctuated by this new fashion. When he arrived at Boston he was overwhelmed to observe that the enterprising Hubites had received the style by cable and swallowed it in toto. Mr. O'Rell was en route to Australia and at every stop on the continent saw evidences of this same blind worship. He laughingly relates that when he reached Samoa, Robert Louis Stevenson gave him a cordial greeting after the latest Parisian custom.

"I see that Fashion wears out more apparel than the man," said the "Bard of Avon,"—a solemn truth. Churchill exclaims:

"Fashion—a word which knaves and fools may use
Their knavery and folly to excuse."

Strange it is, we worship at this shrine though it strain every financial nerve. Blinded by extravagant passion, the devotees of style seem utterly indifferent to accumulating debts and increasing liabilities, until finally, as by a cataract, they are engulfed in bankruptcy, Just as the popular mind is more or less tinctured with superstition, so are all slaves of fashion. What other power could induce the fearful extremes of dress, which distort and deform the body of lovely woman and render her an easy prey to many ills and pains?

It was Cowper, the author of so many sweet and sacred poems, who spoke of "Cups that cheer but not inebriate." True it is, they cheer, and most rarely, if ever, do they intoxicate, but every physician of extensive experience in the handling of heart and nerve cases must recognize in the excessive indulgence of tea and coffee a potent factor in the causation of disease. Gratifying in their moderate use and delightful in their temporary effect, nevertheless, when long continued, they are capable of causing obstinate dyspepsia and many kinds of nerve disorder. The Classical "Question Mark" of English Literature alludes to coffee as the beverage,

"* * * * which makes the politician wise,
And see through all things with half shut eyes."

and no less a light than Colley Cibber apostrophizes: "Tea! thou soft and venerable liquid, thou female tongue-running, smile-smoothing, and heart-opening cordial, to whose glorious insipidity I owe the happiest moments of my life." Thousands will endorse each of these authors, but a greater number suffer nervous headaches, when denied their cup, and the woes of dyspepsia when their taste is gratified. Another and no less serious phase of this question is the fact that young children accustomed to the use of these stimulants soon feel the need of stronger ones.

Any discourse on Intemperance to an American assemblage, would be incomplete without reference to the

"Virginia Weed." To most of you the phrases, "tobacco throat" and "tobacco heart" are familiar terms and they are an index to a much needed lesson in health preservation. While excess in the gratification of any appetite invariably tends to disaster, the moderate indulgence is a real pleasure. In "Reveries of a Bachelor," that delightful collection of dreams by Marvel, he says, "That first taste of the new smoke and fragrant leaf is very grateful, it has a bloom about it that you wish might last, it is like your first love—fresh, genial, and rapturous. Like that it fills up all the craving of your soul; and the light blue wreaths of smoke, like the roseate clouds that hang around the morning of your heart-life, cut you off from the chill atmosphere of mere worldly companionship and make a gorgeous firmament for your fancies to run riot in."

Oh! beautiful tribute to the soothing effects of this universal companion. Many of you will endorse the recital of its joyous comforts. All this I grant, but carried to excess it possesses wonderful power for evil. The destructive results are in proportion to the amount used, the vital power of resistance, and eliminative capacity of each individual. This resolves itself into a personal equation and renders it more difficult to formulate general rules; but certain it is that there is always a tendency to excess and this immoderation is invariably harmful. Many are the experiments performed to disprove the injurious effects of tobacco—but they have demonstrated the reverse of the acknowledged intention.

Dr. J. W. Seaver, of Yale, made accurate observations of about two hundred college men of one class. He divided them into three groups, first, the non-users of tobacco in any form; second, those who had used it regularly for at least a year; third, the occasional users. He made accurate records and demonstrated that the first group gained in weight 10½% more than the second and 6½% more than the third. In height the abstainers increased 24 per cent more than the habitues and 11 per cent more than the irregulars. In girth and chest, the first group increased 26 per cent more than the second and 22 per cent more than the third. In lung capacity the abstainers gained 77 per cent more than the devotees and 46 per cent more than the "tipplers." This is but one of many investigations—all leading to the same general conclusion.

Tobacco is never of any real value to the economy and some times is exceedingly harmful. In the examination of applicants for admission to the army during the Spanish war over 90 per cent of all those addicted to cigarettes were rejected on account of physical unfitness. Those accustomed to examine for life insurance companies are sadly familiar with the abnormal heart and contracted chest of tobacco fiends. Another serious result of this habit is its frequent effect on future generations. The great Sir Benjamin Brodie has said: "No evils are so manifestly visited upon the third and fourth generations as the evils springing from the use of tobacco." We are accustomed to defend the weed by allusions to some octogenarian of the neighborhood who has constantly used it since early life, happily, so fortified by nature as to resist its injurious tendencies. But, study his children and their off-spring—make note of the far-sighted—the near-sighted—the astigmatic, of those afflicted with St. Vitus's dance, of the hysterical daughter, and the nervous and stimulant craving grand-son. In nothing is temperance more becoming and necessary than in the use of tobacco.

As I said before, in the popular mind, intemperance comprises merely the excessive use of alcohol. With this phase all of us are more or less familiar and on it I shall not long detain you. While disavowing my confidence in the drug as a food and feeling very skeptical of its utility as a stimulant, I shall not harangue you with an argument pro or con. Alcohol, like opium, is essentially a pain-killer—hence its universal employment.

Think for one moment how natural, indeed, I might say, how inevitable, it is that we blunder in its use. "Here is a man shivering with cold, we give him whisky, he is less conscious of cold and we at once acquiesce in his delusion that he is warm. The next week the same man is over-heated, a well-meaning friend administers alcohol—his nerves are deadened—he is less conscious of heat—so, we flatter the remedy and believe the patient is cooling off." Another illustration: We find one who digests his Kansas City breakfast with distress and difficulty—we give him alcohol, he is less conscious of discomfort and naturally praises the supposed cure-all. However, I promised that only the abuse of alcohol

should engage your attention. In the summer of '98 an eminent authority, in touch with all the statistics of imported beverages and familiar with the output of home factories, estimated that the annual consumption of alcoholic drinks, calculated in figures of absolute alcohol, is over 1½ gallons for every individual in the United States.

This man was working strictly in the interests of science, not employed by any temporary organization. Pause for once and consider this enormous excess. One gallon of absolute spirit for every individual in the Union. Without elaborating on what alcohol will not do for the human body, let me briefly recall some things that its intemperate use will unfailingly accomplish. It will cause the most severe acute indigestion. Long continued, it produces the worst form of gastric catarrh, beyond the power of man or medicine to cure. It is a prominent factor in the etiology of congestion, inflammation, and cirrhosis of the liver. Secretly and stealthily it saturates the system with uric acid and thereby implants a foundation for Bright's disease. It impairs the eye-sight and hearing, it is the most productive agent in the causation of nervous diseases, and over 25 per cent. of the insane place upon alcohol the burden of their misfortune. But, listen, the prolonged ingestion of these beverages will so impair the power of resistance—the power to eliminate poison and repel disease—that the patient succumbs to what would otherwise be a mild malady. 'Tis almost a curiosity to see an old alcoholic habitué recover from pneumonia or typhoid fever. Finally, we dare not disregard the appalling fact of heredity. Just as we inherit a case of consumption, a gift of mind, or impulse of disposition, so we inherit a weakened resistance and a lowered vitality. It is no exception for one addicted to any phase of intemperance to have a contracted chest, feeble heart, irritable stomach, stupid mind, and a general tendency to excess in any indulgence.

While roaming quietly through the moonlit gardens of Arcadia, Hygeia, the goddess of health, was lamenting over the ills of her people, when her solitude and meditation were ruthlessly interrupted by the sudden appearance of Bacchus, the god of wine.

Said he: "Come drink with me, I give friends to the lonely, strength to the weary, and make joyous the distressed." Said Hygeia: "Thy promises are sweet, but the fulfillment a delusion, the danger is no less because concealed beneath thy veil of pleasure." Then Bacchus boastingly exclaims: "Come ye sons of toil and receive rest, ye sluggish brains and recover fresh vigor, ye tired minds and receive renewed brilliancy; come ye broken-hearted and accept the consolation of my potion." Then Hygeia, rising to full height, with the light of truth bathing her brow and the fervent glow of sincerity sparkling in her eyes, points the finger of scorn to guilty Bacchus, while she exclaims: "No! the testimony of army officers, of insurance companies, of 'Arctic explorers and ahtletes is practically unanimous that the total abstainers bear extremes of heat and cold, endure sharp conflicts and long marches, exposure to storm and disease much better, and recover from fatigue and illness more speedily,' than those who bounteously or sparingly partake of the flowing bowl. Oh! Bacchus, thou hypocrite, no longer deceive us, thy claim is false, thy end is death. "

As a physician of less than ten years' experience in general practice, you will not grant me credit for such extensive observations as some of my older and wiser colleagues who help to comprise this audience, but I venture they will sustain me in the assertion that the average adult in Alabama is extremely intemperate in drug taking.

Less than six months ago I was called to see the baby of most affectionate parents. Upon diligent inquiry as to the cause of the disease I was informed that the infant had enjoyed nothing unusual in diet except some orange juice, twenty-four hours previously, since which time he had been very ill. The mother had given assafœtida, soothing syrup, and teething powders, with disappointing results. The father was called in consultation, immediately understood the situation, and begun "broken doses of calomel." Finding no abatement in several hours, they conferred with the grandmother, who forthwith advised a decoction of egg shell and had the chest well covered with equal parts of kerosene and mutton suet. Poor little sufferer! A half teaspoonful

of syrup of ipecac prescribed by myself brought away the offending orange seed, and all was well.

A few years ago, I knew a man to swallow within a half hours' time the contents of eleven eight-ounce bottles of Dr. "Somebody's Favorite Prescription," or "New Discovery," without feeling the least discomfort. Pity it is that all popular remedies are not equally innocent! Alas! too many but start the insatiable thirst for stronger drugs, 'till overwhelmed in the maelstrom of excess and intemperance.

Some months ago a prominent commercial traveler representing one of the largest firms in the Union called my attention to his enormous sales of cocaine and morphine. Prompted by this, I wrote some twenty or more wholesale drug houses and above fifty of the representative retail druggists of Alabama, requesting an estimate of the per cent. of increase in their sales of these two medicines. Over half of the number responded, and from these I get the average increase in the sales of morphine to be above 35 per cent. in ten years, and of cocaine over 75 per cent. One large wholesale house writes that its general business has increased 30 per cent. in five years, while its sales of cocaine have increased over 2,000 per cent. They uniformly state that a large proportion of these drugs is bought by the general public.

The enormity of damage resulting from the indiscriminate sale and intemperate use of cocaine is almost beyond conception. As a snuff, it is becoming popular among our Southern negroes, and ere long we may expect a most pitiful spectacle—when they have neither shelter nor food, but are madly craving the expensive drug and thereby rendered unable to work; then, indeed, will they be given up to riotous excess, and debauchery of every kind. In one of his thrilling stories, Dr. Conan Doyle makes his famous detective, Sherlock Holmes, resort to the use of cocaine to stimulate his mind to a high degree, 'ere he could ferret out those finely-spun detective schemes, and I regret to say it has become the habit of some actors, public entertainers, and others to use the same drug to quicken their wit and sharpen their perception. The temporary effect is gratifying—the end is change of character, disease, lost will, dishonesty, impaired nerve energy, disre-

gard of truth, insanity, and, often, death. Cocaine is now taken by a comparatively few, but the habit is most rapidly spreading.

It is claimed that opium is used to excess by six or eight per cent. of the entire population. It is one of God's best gifts to suffering humanity, but like His other gifts, when used in excess it becomes the vilest curse. While necessary in many conditions, opium always has the properties of a powerful poison and should never be used except when ordered by one thoroughly familiar with its nature.

"The inveterate opium habitué is, notoriously, always under an opium dream as to the harmlessness or even benefit of his habit. From such persons much of the testimony in favor of opium has clearly come." As an index to the amount of opium and of its various derivatives used in some localities in our State, I will quote from certain of the letters above referred to. In one town of about 1,000 population, the druggist writes he sells about 50 quarts of laudanum—twelve and a half gallons—and over forty ounces of morphine. Not one-tenth of this is sold to, or ordered by, physicians. Assuming that he supplied 1,000 people in the surrounding country in addition to his towns people, this means he sold 26 full doses of laudanum and 34 full doses of morphine to each individual in his neighborhood.

A drummer from one house told me that his yearly sale of morphine in a certain Mississippi town would average ten ounces for each 1,000 of population. When we calculate this we find one house selling over twenty full adult doses of morphine for each individual in the community. This man expressed a doubt that he had sold even a fourth of the morphine consumed at that place. I could tell you a dozen similar cases.

In one of his excellent medical pictures, Crabbe uses this graphic recital of the dangers to which the "little waves on the sea of life" are subjected:

> Then the good nurse, (who had she borne a brain
> Had sought the cause which made the babe complain)
> Has all her efforts, loving soul applied,
> To set the cry and not the cause aside.
> She gave her powerful sweet without remorse;
> The sleeping cordial—she has tried its force.
> Repeating oft, the infant freed from pain,
> Rejected food, but took the dose again,
> Sinking to a sleep, while she her joy expressed,
> That her dear charge should sweetly take its rest;
> Soon may she spare her cordial—not a doubt
> Remains, but quickly he will rest without.

None can tell the effects of opium so forcibly and eloquently as he who has used it in excess, as was done in that classical monograph, "Confessions of an English Opium Eater." Thomas DeQuincey gives a clear exposition of its power and danger. After one day's abstinence, he gratified his longing and thus he exclaims: "I took it and in an hour, Oh, heavens! what a revulsion! What an upheaving from the lowest depths of the inner spirit! What an apocalypse of the world within me! That my pains had vanished, was now a trifle in my eyes, the negative effect was swallowed up in the immensity of those positive effects which had opened before me—in the abyss of divine enjoyment thus suddenly revealed. Here was a panacea for all human woes. Happiness might now be bought for a penny. Peace of conscience and ease of soul can now be corked in an ounce bottle and carried in the vest pocket." But listen, by and by, the pleasures have a grave and solemn complexion. In his happiest state the opium taker cannot "present himself in the character of L'Allegro—even then he thinks and speaks as becomes Il Penseroso." Then after writing fully an hundred pages on "The Pleasures of Opium," he ends with these expressive words :"But now farewell, a long farewell to happiness, winter or summer! Farewell to smiles and laughter, farewell to peace! Farewell to hope and tranquil dreams! Farewell to the consolations of sleep! These were once my joy; they have gone. I am now arrived at the Iliad of woes; for I now have to record the pains of opium.

*** * * * As when some great painter dips**
His pencil in the gloom of earthquakes and eclipses."

Then follow the most heart-rending descriptions of sleepless stupidity, ghastly dreams and phantom shadows, 'till at the end he exclaims: "My sleep is tumultuous, and like the gates of Paradise to our first parents when looking back from afar, it is still (in the tremendous lines of Milton) "With dreadful faces thronged and fiery arms."

In one of his beautiful translations from Ovid, Alexander Pope sweetly sings the tragedy of Sappho, an ancient Greek poetess. So great was her unrequitted love for Phaon that she retired to the temple of Apollo on a

promontry of Leucadia, from which she cast herself into the tumultous sea below. Oh unsatisfied longing! How forcibly does this Greek legend illustrate the mad passion that binds its devotees to opium. Friendship, prosperity, home, loved ones, and life itself are gladly sacrified on the altar of this disappointing drug.

> "Oh, sly deceiver, brander o'er and o'er,
> Yet still believed, exulting o'er the wreck,
> Of sober vows."

The last form of intemperance to which I shall direct your attention is certainly the most general and probably the most serious yet considered. I venture the assertion that there are few families exempt. I refer to *excessive eating.*

Memory of college days recalls one Saturday evening when the week's work was completed. A buoyant young friend with an appetite like that of voracious Samuel Johnson proposed that three of us should enjoy all the bananas we desired and he who ate the least number should pay for the entire lot. After eating nine I was glad to settle for thirty-three bananas. This I mention as an illustration of the foolish extent to which intemperate diet is often carried. Referring to the prevalence of over-eating in his early day the "Philosopher of the Tub" once said: "As houses well stored with provisions are likely to be full of mice, so the bodies of those who eat much are full of disease." The thought embraces much medical knowledge, for there is probably no more prolific cause of physical distress and mental stupidity than excessive gratification of the appetite. Dilated stomach, chronic gastritis, hepatic torpor, gout, rheumatism, uric acid diathesis, and chronic Bright's disease are but a few of the ills resulting from this phase of intemperance. In his "History of the Roman Empire" Edward Gibbon relates that one Soliman, Mohammedan Caliph, ate at a single meal "70 pomegranates, an entire kid, 6 fowls and a huge quantity of grapes." From this we may suppose that over-eating is not strictly a latter day fashion.

In his Anatomy of Melancholy Burton says: "Gluttony is the source of all our infirmities, the foundation of all our diseases; as a lamp is choked by a superabundance of oil, a fire extinguished by an excess of fuel, so the

natural heat of the body is destroyed by intemperate diet."

"Fat paunches have lean pates, dainty bits make rich the ribs, but bankrupt quite the wits," writes Shakespeare.

So much for intemperance. Now, my brother physicians, let me briefly allude to our relations to this insidious, multiform, ever-present intemperance.

Are we, as conservators of the public good, trusted guardians of the individual health, sufficiently careful to discourage every phase of excess and to obviate every source of danger?

We may rightly esteem it outside our province to advise against the intemperate talker, but should we not frown on every phase of intemperance which either directly or indirectly affects individual health? Does tight lacing cramp the bodily organs and impair their functions? Then let us persistently condemn it. Does a heavy skirt tied about the waist distort the body and prove a drain on strength? Then let us condemn this fashion. Do long trains gather up the germs of disease and seeds of death to harbor them in the home? Then let us condemn the custom.

Is it true that tea, coffee and tobacco are never of real value as foods? Is it true that one addicted to their use finds it difficult to dispense with them? Is it true that they impair the best digestion, and in excess are capable of serious evil? Then let us caution extreme moderation.

In our prescriptions containing the various narcotics are we sufficiently careful to direct that they shall not be refilled? In our hurry to finish with a suffering patient and answer the next call are we not too free in the use of hypodermics and less attentive to heat, cold, and nature's harmless remedies? Almost every response to the eighty letters I mailed tc the various druggists of the State says most of the drug fiends begin the habit following some spell of illness. The accusation is freely and often made by the laity that careless dosing on the part of physicians is the most prolific cause of excess along this line.

Our profession likewise suffers the indictment of manufacturing drunkards. To those who resort to a frequent use of alcohol let me make one special appeal. If

'tis the alcoholic effect you wish to attain (and surely no one claims any other effect from the popular beverages) why prescribe wines, ales, and whiskies of such uncertan strength? You cannot tell within 50 per cent. of how much alcohol a certain sample of whisky will contain. With no other drug would we submit to such varying strength? To escape all errors and yet attain our aim, how much wiser to use pure alcohol diluted with water. By this we avoid all uncertain strength, prescribe a remedy of known power, and, avoiding the more popular beverages, we thus remove our patient from a great source of temptation. This I believe to be the practical solution of the alcoholic problem, so far as medicine is concerned. The suggestion was long ago made by Dr. N. S. Davis, the Nestor of American Medicine, and will, I believe, soon increase in popular favor. In one of his "Dialogues of the Gods," Lucian represents Hercules and Aesculapius as quarreling with each other as to which shall occupy the higher seat in heaven.

With most positive and emphatic decision, Jupiter grants the favor to the god of Medicine—intimating that it is more blessed to save life than to destroy it.

Pope says:

> "A wise Physician, skilled our wounds to heal,
> Is more than armies to the public weal."

When the final day of reckoning comes I firmly believe the family physicians of our land will receive a high place. I never question that in unselfish devotion, sweet spirited charity, and genuine worth, the physician is the peer of any class.

> "Unskilled he to fawn or seek for power
> By doctrines fashioned to the varying hour,
> For other aims his heart has learned to prize,
> More bent to raise the wretched than to rise."

But, brother doctors, are our skirts entirely clear along the line of guarding against intemperance? Are we exempt from censure? To discourage excess and immoderation of every kind should be our constant aim and holy endeavor. No one enters the inner courts of personal secrecy with such freedom as does the doctor. It is here we can help to solve temperance problems. It is here we can guide aright the wayward, cheer the dis-

consolate, and "lift up the fallen." With minds unclouded by any form of dissipation; hearts strengthened for any fray and a helpful hand may we battle forever for Truth, Temperance and Health.

And, finally, my friends, let us daily cultivate a spirit of moderation in all things.

In speech, 'tis a benediction; in fashion, a jewel; in drinking, a blessing; in eating, a necessity.

MONITOR'S ADDRESS.

By William Elias Brownlee Davis, M. D., Birmingham.
Senior Counsellor of the Medical Association of the State of Alabama.

Mr. President, and Fellow Members of the Medical Association of Alabama, Ladies and Gentlemen:

I voice the sentinment of the visiting members of our Association in expressing the pleasure we experience in meeting again in the Central City of Alabama, full of historic interest, with its beautiful homes, lovely women, and splendid men. The names of Pettus, Morgan, Rucker, Ward, Johnston, and Hardee are the pride of the entire State. As physicians, we recall with special pleasure the lamented Clarke, Park, Clark, Riggs, McKinnon, Tipton and Johnston. They form a galaxy of bright stars on the medical firmament of Alabama.

When our distinguished President informed me of my appointment to deliver this address, I did not fully realize the responsibility I was to assume in attempting to prepare something suitable for this occasion. However, much of what I lack in ability is in a measure compensated for by my enthusiasm for the medical profession, and particularly that portion represented by the Medical Association of Alabama.

There was a time, in my early professional career, when I possessed a burning desire to give advice to this Association. I was deeply impressed that I held opinions which would be of material value to the organization. It was some seventeen years ago when this responsibility—this professional burden—bore down so heavily

on my mind. Yet, notwithstanding the fact that the Association refused to change its course, did not show in a very marked way its appreciation of my proffered advice, it has continued to grow in strength, wielding a most beneficial influence on the profession and accomplishing much for the public weal.

At considerable expense I assisted in establishing a medical journal, through which I might reach the profession and bring about these "greatly needed" reforms. I pleaded for higher medical education, a complete change of our system of examinations, better medical literature in the State, and so on. Well do I remember the pride I felt when I wrote in my salutatory that the Journal's object would be "to promote a higher standard of medical ethics and to improve the medical literature of the South and West, and especially that of Alabama." The salutatory went on to say that the objects of the Association were laudable, but that there were many defects in the modes of accomplishing or carrying out the purposes of this organization. It informed its readers that these defects would be pointed out by the Journal, and each in turn would receive due consideration.

I have often felt humiliated by these early signs of misdirected energy, but have been somewhat relieved of my embarrassment of late by seeing some excellent men, fifteen years after these experiences of mine, acting along the same lines, with an apparent feeling of the same grave responsibility. Indeed, many of their suggestions are good, just as mine were, but untimely and inexpedient.

You marvel, I am sure, why I should have been selected to recite to you ethical truths. The subject of Ethics has been dealt with by the ablest minds of all ages, and I shall not attempt to discuss the teachings of Plato, Aristotle and the rest. All agree that it is the province of Ethics to define what is right, and we are taught that this is embraced in those golden words, "Whatsoever ye would that men should do to you, do ye even so to them." Mr. Huxley in his analysis of the golden rule, says: However much one may admire the generosity of such a rule of conduct, men may be depended upon not to carry it out to the full logical consequences; that these consequences are incompatible with the existence of a civil state, as the desire of the

wrong-doer is to escape from the consequences of his action. "If I put myself in the place of the man who has robbed me, I am possessed by the desire not to be punished." "Strictly observed," says he, "the golden rule involves the negation of law by the refusal to put it in motion against law-breakers. It can be obeyed, even partially, only under the protection of a society which repudiates it. Without such shelter, the followers of the golden rule may indulge in hopes of heaven, but they must reckon with certainty that other people will be masters of the earth." He illustrates by asking, what would become of the garden if all the weeds and slugs and trespassers should be treated as if the gardener were in their place.

Mr. Huxley fails to recognize the moral law which punishes crime and which calls for just discrimination in all our acts. The upright man must not assume that he is a criminal, for such a position would be inconsistent with his life, and impossible for him to appreciate. Mr. Huxley's reasoning, while at first sight appearing logical, leads to conclusions which are far from the truth.

The very fact that there is a difference of opinion as to how the golden rule should be interpreted makes a code of ethics necessary and the code of the American Medical Association is the medical profession's interpretation of this rule, and it has proven of inestimable value to have these rules of conduct so ably formulated.

I now come to the subject which I have selected for my remarks:

THE MEDICAL PROFESSION AND THE PUBLIC.

"Unfortunately for the profession and the public, physicians have not become as prominent in public matters as they should. They are among the most intelligent citizens and the members of no other profession are so much beloved."* In the family's time of sorrow and severest trials the physician is the ever-present friend and adviser. Indeed, he is one of the family, they speak freely before him and from him the "skeleton in the closet" is not concealed. It has been truly said that every good woman has the privilege of loving three men; her

*Dr. Hyer's Address, Vol. 1. Southern Surgical & Gynæcological Transactions.

husband, her physician and her preacher. However, the preacher does not enter the home life and get into the hearts of his people as does the physician. He sees them, as a rule, in health, and when he is called to them in sickness it only "devolves upon him to propound the doctrines of his particular creed, his responsibility being limited." The lawyer's relation is of a momentary nature and "occupies a relatively low place in the love and confidence of his clients." Yet, he is uppermost in influence in public matters.

The lamented Peterson in his Presidential address before this Association, spoke truly of the medical profession when he said: "The power of genius and learning may sometimes elevate the doctor to considerable renown, but there are very few avenues to distinction open to the medical profession. It is said that law is the stepping-stone to political preferment, and common observation proves it. The members of the legal profession may aspire to any office in this country; medicine is the stepping-stone to nothing but hard work, self-sacrifice and martyrdom.

"The only prize which comes to the most laborious worker is a large practice, which is acquired as youthful strength is waning and soon exhausts his remaining vitality. He is under the weight of an immense responsibility, and his reward on earth is often *ingratitude*. He has no time for social enjoyment, no time for sleep. Night and day toil. No time for any thing but work; work until this constant mental tension snaps the thread of life and the soul is landed into eternity.

"It is not an easy profession, but requires long and hard study—the novitiate being much longer than many other professions. It is expensive to learn, and not lucrative except in rare instances. * * * The doctor must grow familiar with mental and physical suffering, and must see humanity stripped of pride and all fictitious ornament and undergoing the last fearful change from the erect and God-like image—the living temple of enshrined divinity—to the inanimate dust. In looking over the field we are impressed that medicine is the most profound study that can engage the attention of the most cultivated intellect but like other professions whose offices are called for by the disagreeable incidents of humanity, it is only tolerated as a necessity."

Under the title "Slaves to Precedent" the editor of one of our leading medical journals recently paid the medical profession a highly deserved tribute. Truly, the leaders of our profession are not slaves to precedent, but are constantly devising methods and measures and making new discoveries, and devoting themselves to disseminating this knowledge. He says:

"Of all the so-called "learned" professions in the matter of progressiveness, the medical profession is surely first. As we well know, lawyers and judges are ruled almost entirely by precedent. However much we may be told that law is the crystalization of equity and common sense, yet the fact remains that our courts of justice are ruled today by the rulings made in the past, and lawyers busy themselves not in endeavoring to appeal to the sense of fairness of the judge sitting upon the bench, but to influence and direct his decisions by a formidable array of previous judicial decisions, the authors of many of which have long since been dead.

"In the church it has ever been the custom to bow the head abjectly to the rulings of the past church rulers, rather than to move outside of the beaten path."

As illustrating the disposition of human nature to move along the lines of least resistance, through the paths that others have trod, and to indulge in as little thinking for themselves as possible, he quotes as follows from Sam Walter Foss, with the title of "The Calf-Path."

One day, through the primeval wood,
A calf walked home, as good calves should,
But made a trail all bent askew,
A crooked trail, as all calves do.

Since then, two hundred years have fled,
And I infer, the calf is dead.
But still he left behind, his trail,
And thereby hangs my moral tale.

The trail was taken up next day
By a lone dog that passed that way;
And then, a wise bell-weather sheep
Pursued the trail o'er vale and steep,
And drew the flock behind him too,
As good bell-weathers always do.

The years passed on in swiftness fleet,
The road became a village street;
And this, before men were aware,
A city's crowded thoroughfare;
And soon the central street
Was this of a renowned metropolis.
And men, two centuries and a half,
Trod in the footsteps of that calf.

Each day, a hundred thousand rout
Followed the zigzag calf about,
And o'er his crooked journey went,
The traffic of a continent.
A hundred thousand men were led
By one calf near three centuries dead.
They followed still his crooked way,
And lost one hundred years a day,
For such a reverence is lent
To well established precedent.

The physician must be a student of human nature. He often profits from his knowledge of Shakespeare more than from what he has learned in his medical books. He appreciates the effect of the mind over the body as well as that there must be a healthy body for a healthy mind. He understands that many church members who feel doubtful about their salvation and sure that they have fallen from grace are good christians and only need medicine for the liver. "His knowledge of the enthusiast and hyochondriac enables him to deal with both advantageously." Full well does he know the value of discreetness. "He is the repository of the secrets of the community and gives out nothing." The virtue of hope and cheerfulness is taught in his every-day life.

*One should be careful in the seclection of a physician, and having done so should turn himself or herself over to him without reserve. The position of the patient to physician has been likened to and is well illustrated by the captain who places his ship in the hands of the pilot as he enters the harbor. The captain needs only to ex-

*Dr. Hyer's Address, Vol I. Transactions Southern Surgical and Gynecological Association.

plain some of the peculiarites of the ship—the pilot is in control. Of course the patient should explain to the physician any idiosyncrasies. No class of men do so much for the poor as the medical profession, and if able the patient should promptly discharge his financial obligation to the physician. A man who can and will not pay his physician deserves the severest condemnation. In this connection you will pardon my reading some lines on "Good Enough For Me," by Dr. G. A. Moore, which always appeal to the doctors:

For a doctor, old and weary,
From his life of toil and love,
Came an angel down from heaven
To transport his soul above.

Said the angel: "I'm from heaven;
The Lord just sent me down
To bring you up to your reward;
To wear your golden crown.

"You have been a friend to ev'ry one,
And workt hard, night and day,
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
You have toiled both long and hard;
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward Glory's gate,
But when passing close to hades,
The guiding angel murmured, "Wait!"

"I have here a place to show you,
It's the hottest place in hell,
Where the ones who never paid you
In eternal torment dwell."

And, behold, the doctor saw there
His old patients by the score;
And, taking up a chair and fan
He wisht for nothing more,

But was bound to sit and watch them
As they sizzle, singe and burn,
So his eyes would rest on debtors
Whichsoever way they'd turn.

Said the angel: "Come on, doctor,
There's the pearly gates I see;"
But the doctor only muttered:
"This is good enough for me."

So far I have said nothing of the obligations of the State to the medical profession. Alabama has the most complete organization of the profession in the Union. It was the first to establish a satisfactory system of health laws. There are about twelve hundred members of the various County Societies, and these are *de facto* members of the State Association, and vote through their respective delegates, two being allowed from each county. One hundred counsellors, elected for life, are, in addition to the delegates, entitled to vote. The organization thus constituted has every element of strength and permanency. With all this to commend it to the public, it has been intrusted with the execution of the laws of health of the State, and empowered to pass upon the qualifications of candidates to practice medicine in its territory. Its legal power exceeds that of any other State organization. All this was brought about by the medical profession, under the leadership of the lamented Jerome Cochran, to whom this magnificent organization is a monument more enduring than marble. I have not language to express to you the magnitude of this great man's work for Alabama. None of her other sons have accomplished so much. In our sorrow at his loss, let us be sufficiently thankful that his mantle has fallen upon one so worthy as our present Senior Censor. Too much praise cannot be given for the able and indefatigable manner in which Dr. Sanders has conducted the affairs of his responsible office.

The work of the State Board of Health, especially for the past five years, has been onerous, and oftentimes critical and delicate in nature. The appropriation made by the State for this work has been exceedingly small. Many of the counties have paid their health officers for collecting vital statistics and supervising county sanitation wholly inadequate salaries, and some of them no salaries at all. The various committees of public health —State and county—do their work gratuitously. No less than $150,000 worth of labor of the kinds mentioned, is being performed annually for the public by the medical profession, for which the State appropriates about $4,000 and the counties, all told, about $8,000.

You readily see that something is radically wrong when so little is done by the public. This must be due to the want of appreciation on the part of the laity of

what may be accomplished by the profession. The value of these services can in a measure be understood when it is remembered that typhoid fever epidemics may be controlled, small pox and other contagious diseases circumscribed or eliminated, and yellow fever kept out of the State through the Boards of Health, with the saving of thousands of lives and hundreds of thousands of dollars annually. Unfortunately, the legislators are inclined to regard the medical organization as a trust, looking out for its own interests. They do not seem to understand that the members of the profession, by limiting the spread of disease, by enforcing sanitary measures, reduce their incomes. It is with much effort that the profession is enabled to keep our laws intact, and almost impossible to secure additional sanitary legislation. Even vaccination, the value of which has been demonstrated beyond all question, has its opponents in the Legislature, and the State of Alabama has lost perhaps one-half million dollars on account of its failure to pass a compulsory vaccination law. A prominent member of the Legislature is reported to have said that this was a free country, and the man who persisted in his efforts to vaccinate him or his family would be met with a shotgun. A leading business man in one of our Alabama towns, three years ago, opposed every effort of his townsmen to enforce vaccination, and made himself very conspicuous and obnoxious thereby. Only a few weeks elapsed when he was seized with a malignant form of the disease and died. His widow was a patient of mine soon afterwards, and, naturally, was plunged in deep grief. Whilst sympathizing with her, you will forgive me, I trust, if I express a half conviction that her husband deserved his fate for having defied the teaching of science by refusing to avail himself of the protective power of vaccination.

I hear you say: "The profession has quarantined yellow fever instead of the mosquito, which recently has been shown to spread the disease." I answer: The mosquito must get the blood from the yellow fever case, and, besides, the demonstration that the mosquito pays so important a part in the distribution of the disease was the work of the medical profession. I may also remind you that Alabama has escaped the disease through the vigilance of her able Health Officer. Says Dr. St. John

Roosa, (Medical Record): "The record of the last century, as detailed in one of our newspapers, by Osler and Keen, is sufficient justification for my claim that the public and the State owe so much to medical science that they ought to cherish and maintain the medical profession at the highest perfection. * * * In the Nineteenth century the catalogue of achievement is long. The advances that have been made in medical science have not been the work of great syndicates with tremendous financial backing, and all the paraphernalia and money of great corporations in the full glare of the world, but oftentimes of private individuals, unaided by public funds, public institutions, or private gifts—alone in the laboratory or the consulting room, or in the wards of the hospital, or over the patient in the cottage, or the hamlet or the tenement house of the crowded city. These great deeds have been self-inspired by the physicians and surgeons who have wrought them out. Mighty problems they have been.

I will not occupy your time in relating the many advances and discoveries of the past century. Think of the germ-theory of disease, general and local anaesthesia, antiseptic surgery, the Roentgen ray, the ophthalmoscope, the stethoscope, the laryngoscope, the cystoscope, Sims' speculum, and much more.

I cannot pass this part of my subject, however, without reminding you that the surgery for the relief of diseases peculiar to women had its origin in this State. To Marion Sims is due this credit. It has been well said: "The outcome of the labors of this great man has no parallel in the annals of medicine." He has conferred upon Alabama the honor of being the birth-place of gynecology, and "has done more to alleviate the suffering, restore the health and prolong the lives of women than any other man, living or dead." The lamented Haggard of Nashville said of him: "To those who knew Sims personally he gave inspiration while he lived, and now that he is dead he has become a tradition; and his teaching, his example, and his labors have passed into history and coupled his name with the practice of an art which will illuminate the ages to come."

The law empowering the profession to pass upon the candidates to practice medicine in the State is a very important one, and is contested at almost every meet-

ing of the Legislature. It is argued that the Examining Boards reject applicants for selfish motives. It will be of interest to you to know that State examinations are not opposed by the schools of medicine, which require a knowledge of the fundamental principles of medicine. The Homeopathic and Eclectic physicians, as a rule, advocate such an examination. The opposition comes from the Christian Scientists, Osteopathist, and the like, who possess almost no medical knowledge. The course of study in the Homeopathic school—and I use this school as a type of the irregular schools requiring professional qualifications—is quite thorough, and the regular medical profession makes no legal objection to its mode of practice, but cannot endorse its dogma—"*Similia similibus curantur*," which is only true very exceptionally. It was the founder of this school who dubbed the regular medical profession "Allopathy," conveying the impression that its practice was the reverse of Homeopathy. The regular profession has repudiated this, of course, as it has every other dogma. It has reserved the privilege of practicing what has proven to be of value from whatever source, and I may say some things which are of no value, whether from Homeopathy, Christian Science, or elsewhere. The regular profession, by evolution, through discoveries in medicine and surgery, has, within a comparatively short time, materially changed its conception of diseases and their treatment. The Homeopathic school has had a similar experience. If both schools had been kept in ignorance, as the Christian Scientist, Osteopathist and Magic Healers have, they would have continued widely separated, but the fact is there is now little difference except in name. Homeopathy would no longer be applied to this school of physicians but from the fact that so many wealthy families selected as their physicians the followers of this dogma in its early history, and have made large donations to its schools. Their descendants still demand the homeopathic physician, and the doctor himself having evolved so gradually from the original teachings of Hahnemann, scarcely realizes himself that he is no longer practicing what the people expect, and what Hahnemann taught.

Specialism, which is almost equivalent to exact knowledge, leaves no room for any other school than

that of regular medicine. The specialists are largely from the regular profession, and those from the Homeopathic school do not claim to be in any way different from those of the regular profession. Therefore, as the specialists of both schools are one, and as the specialists cover every part of the organism, there is comparatively little left for the general practitioner to speak and write about authoritatively. The standard text books on the Diseases of Women, the Eye, Nose, Throat, Chest, Abdomen, etc., etc., are the standard books for all schools. Hence, knowledge in the form of specialism has brought the schools of learning very close together.

The fight being made annually by the Osteopaths, Christian Scientists and "other classes of imperfectly educated people" does not disturb the national government, but is an ever present source of danger in our State law-making bodies. I quote from Dr. Roosa as follows: "The national government allows no illusion in regard to the value of medical education for its soldiers and sailors. Christian Scientists, Osteopathists and imperfectly educated people of no pathy, but with a gift of healing, have no opportunity for exploiting themselves as medical officers of these two departments of the government. Like the State of New York, the United States is not content with a diploma of doctor of medicine and surgery for its medical officers, but the government insists on a separate, independent, examination for general and technical qualifications before it allows a man to practice medicine among the soldiers of the United States army or the sailors and marines of the United States navy." In support of the necessity of medical laws in order to protect the people from incompetent practitioners of medicine and all of those who make a business of treating diseases, the Pennsylvania courts have expressed an opinion which I quote from as follows: "The experience of the past has justified the wisdom and necessity of medical laws. There is no time perhaps in the experience of life that persons are more susceptible to imposition than when sick or in failing health. They are ever as ready to catch straws as a drowning man. The profession that involves the price or value of human life demands of its practitioners a higher degree of education in all its branches, and such degree of honor and character enables them fully to ap-

preciate the important and confidential relations they sustain to their patients."

Mr Jacob Bowlin, of New York, in a statement made on Osteopathy before the Committee of Health of the New York Assembly, (Medical Record), said:

"I have been elected to represent the laity in our society, and to give you our views on this matter.

"The questions for me to answer are simply these: What relations exist between Osteopathy on the one hand and massage and medico-gymnastics on the other? What are their similarities and differences? And how does this bill, if it becomes law, affect those who practice massage and medico-gymnastics?

"Let me then state that here, as in so many other cases, that old saying slightly changed is true: What is good in osteopathy is not new; what is new is not good. Manipulations and movements have been used in therapy from time immemorial. It is not necessary to refer to the ancients, but you should know that from 1804 they were set into system in Sweden by P. H. Ling, and were in 1813 recognized by the government as a legitimate branch of therapy, and at the present time they are so recognized. But even in that country where these practices are unqualifiedly better understood than anywhere else, where the course of instruction has a duration of three years, and the students must have a preliminary knowledge corresponding approximately to the academic degree of B. A. before they may even enter upon their duties, the government does not allow the independent practice of the graduates of its own institution, but requires a certain amount of coöperation between them and the legalized physicians. In this bill it is proposed to give independent practice to persons who may have taken a course of a month or a corresponding course of a few months. When the standard of medical education in the State has been laboriously raised to approach that of Europe, is it not an arrogance, an audacity, a crime, aye, even a stupidity, which is perhaps still worse, to try to degrade it with one stroke?

"The treatment of disease by manipulations and movements is not, then, a new discovery, as claimed. Nor is it new in this country. From Sweden it was introduced into New York by two physicians, the two

brothers Taylor, in the fifties, and it is now practiced more or less successfully by several hundred persons all over the country who have gained no new knowedge from the Osteopaths. * * *

"They see dislocations and subluxations everywhere. Last summer there came under my care a case of locomotor ataxia where they had diagnosed a dislocation of the spine. Less than two months ago I received from one of the most prominent neurologists in the city of New York, a patient with localized cerebral venous stasis. They had discovered a subluxation in his neck! That is one difference between them and us. We take the diagnosis of the physician. They claim to make their own diagnosis, and it is practically always the same. Why, if any one of you should put yourself in their care you would undoubtedly be found to have a dislocation of the neck. And still I will warrant that it is not your head which has been turned, but theirs—turned completely around and topsy-turvey into the bargain."

In our own State strong arguments from the standpoint of the laity have been presented in favor of Osteopathy. I am told that a prominent woman was allowed to go before the Senate, and with tears in her eyes and with appealing argument, had many of those gentlemen very much in sympathy with her, and when she came down from the stand they crowded around her and expressed admiration for her courage and sympathy in her cause. It is also stated that practitioners of Osteopathy appeared before the Legislative Committee and that they used many arguments calculated to influence those not well schooled in these matters. The woman said that it was cruel to deprive suffering humanity of the help which these healers could give, and then a practitioner of Osteopathy with great gravity addressed the committee. Among other things he is reported to have said: "Gentlemen and friends, I want to recite a case which recently came under my observation. A prominent gentleman consulted me who had been suffering with running from the ear, which was followed by great tenderness and redness and some enlargement behind that organ, just here (placing his finger behind the ear). He had consulted eminent physicians and surgeons and they had told him that an operation would

be necessary. He objected to subjecting himself to the great risk of such a procedure, and as a last resort came to me for relief. Now, gentlemen, I simply took his head in my hands and by a very simple manipulation replaced his atlas, and he was completely cured."

Ladies and gentlemen, this was a case of mastoid inflammation following middle-ear disease, and the operation for its relief is attended with almost no danger. If the man recovered without an operation, which is scarcely probable, it was due to the evacuation of the pus by the efforts of nature. The Osteopathist says he replaced the atlas, and that means the man's neck was dislocated. What a shame in this day of enlightenment that such a fraud should be permitted! Yet the majority of the Senate Committee, who, of course, did not know the atlas from the os calsis, were, I am told, greatly impressed with this appeal and were disposed to report favorably on the bill in their behalf. A distinguished member of the medical profession fortunately was able to show them the fallacy of these claims and the justness of our law, requiring examinations on the fundamental branches of medicine. He appealed to the committee in a very practical and forcible way. He said he understood the followers of this practice proposed to cure everything by rubbing, and addressing his remarks to a gentleman who possessed a threshing machine, he asked him if he would be willing to trust a man to repair his machine, when broken, entirely by rubbing. Would he think it unreasonable to require the man to know the different parts of the machine and their functions? "That," said he, "is what Alabama requires. The applicant to practice must pass an examination upon anatomy, physiology and the other fundamental branches." He used the same argument with the owners of a gin or of a cane mill. They all agreed that one proposing to remedy the defect in these machines should know the different parts and their functions, and admitted that rubbing would be good in some conditions, but that its field would be quite limited. So, our representative of the medical profession had the committee in good preparation for a very forcible illustration, which he then made. Said he: "You have been hearing a good deal about pathies, viz, Osteopathy, Hydropathy, Homeopathy, and Allopathy. Now, I have another pathy, and one which has a great many followers.

This school is known as cow-pathy, and can show many cures. Here is a beautiful woman who, owing to family cares, worry, mental strain, and so on, has lost her strength and flesh. Her appetite is poor and she feels uncomfortable after eating. She suffers from insomnia; little troubles annoy her greatly, and she is depressed and always anticipating some calamity. The cow-pathist says to this patient: "Follow my instructions and you will be cured. On the first day of treatment before breakfast you must walk one hundred yards in this cow-path and return; two hundred yards and return on the second day in the same cow-path; three hundred yards and return on the third day, and so on until you have walked three miles or more." Who will claim that this woman's appetite will not be restored and her health much improved before she had walked the three or six miles before breakfast." "But," said he, to the committee, "you would not claim that it was cow-pathy that cured the woman, but well-directed exercise. This," said he, "is an illustration of the fallacy of the claim of the osteopathists."

Osteopathy is only massage, and is good only when applied to properly selected cases, which the well-prepared physician only can determine. Electropathy and Hydropathy are also of value in the same way. One of the most valuable methods of treating a class of nervous break-downs is known by the profession as the rest-treatment. Yet we do not think of establishing a separate school of medicine to practice the rest-cure.

The false conceptions of the treatment of diseases by many otherwise highly intelligent people, is a serious menace to the health and lives of a large portion of our population. Education is needed, but it is difficult for the laity to become sufficiently informed on these matters as to draw logical conclusions thereon. The public is to be sympathized with more than blamed. It requires years of study and experience in the profession for these principles to become a part of one's life, not to be shaken by present-day frauds. The ignorance of the press and the clergy on these subjects is greatly to be deplored. Every newspaper of consequence should have a well-informed physician connected with its staff, to advise it on medical matters, the most important ques-

tions that could possibly concern the public. The advertisements for patent medicines and quacks which appear in our leading papers are a disgrace to our civilization. Books are suppressed which are clean in comparison with many of the advertisements for these quacks and nostrums. In addition to the moral and vulgar sides there is another evil to be considered. Drug habits are being formed daily by the use of these medicines nearly all of which contain narcotics and nervines. Patent medicine victims are all around us. The habit, once established, never ends, and these medicines make many patients for the physician. The clergy have done much harm in lending their influence and endorsement to these nostrums. They are furnished free bottles and the narcotics and nervines rejuvenate them temporarily, hence they feel better and are called upon to give their endorsement. Dr. Robert Battey has said that the clergy by virtue of their calling, teaching, as they do, faith in the unseen, are more easily deceived. This is readily understood. The fact that the leading men in this noble profession are now seldom found endorsing these evils is worthy of note.

The outlook, I am glad to be able to state, is more promising than it has ever been. Our great magazines are distributing scientific knowledge broadcast. Training schools for nurses are also great factors in the education of the laity. The people are growing better informed. The newspaper, clergy and physicians must assist in widening, deepening and distributing this information.

In the language of our motto, *Nos etiam meliora speravimus*—We even will hope for better things.

HISTORIAN'S ADDRESS.

By Jesse Gray Palmer, M. D., Opelika.
Member of the Medical Association of Alabama.

Mr. President, and Gentlemen of the Medical Association of the State of Alabama:

History is the written record of the past.

It is also such study of the present as tends to bring to us a knowledge of the unwritten past. The great pyramid is not history, and until its inscriptions were deciphered was but an artificial mountain.

The mounds over Ninevah were but heaps of desert sand whose excavation would have added but little of value to the history of mankind had not the inquiring genius of science spurred her votaries to diligent search until at last they found a key to the arrangement and meaning of the cuneiform characters; and lo! the story of Assyria was retold for modern readers. Fact by fact builds history as stone by stone, pyramids. Scholars have sought, and still are seeking, a philosophy of history, a sort of language-key, that will enable them to prophecy future events by those that have gone before. From the days of Pythagoras men have striven to show that man and his environment react upon each other, and to deduce from the results some given law which will guide them toward the realm of prediction. But, even if partial success should crown such an effort, it still remains our duty to transmit to those who shall follow us correct records of the present. Though history is not the chief function of language, it is not its least important one, and to those yet unborn the records of our lives, surroundings, and actions may be to them by far our most valuable bequest. Whoever, through a love of truth and devotion to duty, shall devote his life to the accumulation and preservation of beneficent knowledge, or of any series of truths, however trite and valueless they may now appear, will rear to himself a monument which future generations will appreciate and admire.

The earliest poets were historians. History was the very key-note of their songs. The more heroic the epic, the more of history did it sing. And so, today, our deeds, our lives, are making history.

However commonplace and unimportant to us may seem the happenings of the hour, in some tomorrow of the centuries the record of them will be scanned and studied as the initiatory movements of events of vital import, now undreamed of. Every deed of valor, every tender sacrifice, every laborious effort after scientific truth, all these are the acts of men, living today, historic tomorrow, posing their little hour upon the stage where-in the wonderful tragi-comedy of human life is acted.

The deed is seen, recorded, and becomes history. But who shall write the history of thought, with a world of delight all its own, and an influence over the doings of men that is immeasurable? Prehistoric man has left no story of his deeds, but of his thoughts, his hopes, fears, desires, we have an intelligible record in the names he gave to the constellations.

Thought has given birth to all that distinguishes man from the rest of animal creation, brought safety out of danger, hope out of fear, light out of darkness, order out of chaos. By its power Napier consolidated figures into logarithms, Linnaeus named all living things, Franklin harnessed the lightning, and Newton weighed the sun. It gave to Darwin a working hypothesis for creation, and to Faraday the laws of matter and motion. Still leading onward and upward, it inspired the Teutonic peoples with a concept of freedom for all mankind, and upon this sublime idea, as an impregnable foundation, it has erected, stone by stone, the altars of liberty and the temple of representative government. In freeing man, thought freed itself. Freedom of thought is emancipation from error. Since its shackles were broken it has made many gigantic strides; but nowhere more than in our own profession have the beneficent results of this liberation from precedent been felt. Time was when to settle every controversy the inquiry was made: "What do individual authorities say?" Today the question is: "What does science say?"

History shows that the sources of human activity are the various needs, ambitions, passions, characters and talents of men. Thus, though the blare of trumpets and

waving of banners make the larger show in the world, history is not complete without the records of the lives of others than kings and warriors. In every civilized land today the members of our profession occupy an important and honorable position. The followers of Hippocrates and Galen are recognized elements of power and usefulness. If this be true of individual physicians, much more is it true of organized medicine.

That grand old Nestor of this Association, Jerome Cochran, builded more wisely than was then dreamed of by his coadjutors when he founded the Medical Association of the State of Alabama. Year after year, he labored over the conception of its plan, perfecting every detail, forseeing every danger and providing remedies therefor. It was a long and arduous struggle in the face of incredulity and opposition. At last, he and the faithful little band of friends who worked with him and under his direction succeeded. The Association was incorporated, the charter was secured. Thus did Jerome Cochran make history, and truly did he write in bold and beautiful characters upon a golden page.

The task of continuing the work is now ours. Let us see to it that the transactions of this Association record the highest thoughts, the best professional work, of which we are capable. To this organization and it alone can we look for protection of ourselves and our fellow citizens from the horde of incompetents and pretenders who every year invade the State. No sooner is one tribe of quacks suppressed than another takes its place. The public is incompetent to judge of the capacity of any one to practice the complicated and important art of medicine, and sometimes, even in our legislative halls, our efforts to guard an indiscriminating people against the imposition of unscrupulous men are looked upon with suspicion. It is a strange circumstance that gentlemen who represent some parts of the State in the Legislature are unable to understand or believe that an organized body like this Association can devote its energies to any public measure, and yet be actuated by absolutely unselfish motives. The history of this Association has been one of unselfish effort for the public good. It has asked nothing for the benefit of itself, and for only enough money to execute the functions devolved upon it as a State Board of Health. More than any other South-

ern Board of Health, it has successfully protected the commonwealth against epidemic invasion. I am satisfied that all the opposition to our measures manifested by some members of the General Assembly arises from lack of information on their part, and that if they could once understand the purely altruistic standpoint that we occupy, they would at once become our advocates, instead of our opponents.

It stands to reason that they desire the welfare of the State, therefore, if they would study these matters judicially, and without prejudice, they would become our warm friends and active supporters. The remedy is in our own hands, not as an Association, but as individuals. We are represented in every county. Let us make history by seeing that our candidates for the Legislature will do us the justice of studying the situation, not from an ex parte standpoint, but fairly and impartially. If they will do this, we may safely rest the matter in their hands.

During the past year not one member of the College of Counsellors has been called away by the grim messenger. That this circumstance is a fortunate and joyful one for your Historian to record goes without saying. The reports of the Vice-Presidents show a general improvement in all directions. Peace and harmony prevail throughout our organization. Though some of our members, moved by their great affection for the Association, think it threatened with decay, the bulk of the membership is sanguine and loyal, and the present meeting promises to be one of the largest and most successful in our history. We are growing yearly in power and usefulness. So long as we continue unflinchingly to perform our duties, one by one as they arise, we need fear no attack.

> "Fearless he sees, who is with honor crowned,
> The tempest rage, and hears the thunder sound;
> Ever the same, let fortune smile or frown;
> Serenely, as he lived, resigns his breath,
> Meets destiny half way, nor shrinks at death."

So lives and dies the conscientious doctor. No marble shaft may mark his resting place, but he is enshrined more royally than king or potentate in the grateful memory of those whose welfare was his first, his con-

stant care. A grateful mother's "God bless you, Doctor!" is a benediction more sacred and profound than was ever spoken by priest or pastor.

These are the historical events in the doctor's life. Everywhere as he goes from home to home it is also from heart to heart, and the seeds of brotherly love and human kindness he scatters with liberal hand.

> **"The seed that in these few and fleeting hours**
> **Thy hands unsparing and unwearied sow,**
> **Shall deck thy grave with amaranthine flowers,**
> **And yield thee fruits divine in Heaven's immortal bowers."**

THE OUTLOOK OF MEDICINE IS TOWARD PREVENTION.

By Richard Coopender Bankston, M. D., Birmingham.
Member of the Medical Association of Alabama.

My subject is an old story. Years of effort, even decades of education, may be required to elevate the mind to comprehend its importance. With our present standard of education it would be futile to hope for change of radical nature in our generation, but by urging the necessity of higher education upon our followers we may better equip them to solve the problem. As scientists, we should call attention to the subject and propose measures preventing the introduction of epidemic diseases, and seek the causes of endemic diseases and stamp them out by wise legislation which should acknowledge no right superior to public welfare, no law above self-preservation. Take the scourge, consumption, the death rate of which is greater than from all diseases of endemic character combined. We know it to be infectious under exposure to its germs; with the functions of life lowered, so as to lessen vitality and impair resistance, its onslaught then is rapid and its ravages dreadful. Can it be cured? We know more of it now than ever be-

fore, yet we do not invariably cure it, which makes us believe our safeguard is prevention. Should it at any time be curable it would be during the stage of early invasion and not after its attack has developed in the tissues and changed their character thoroughly. It behooves the physician to agitate this subject, and I am sure an intelligent, humane people will endorse any measure advanced that appears to have the requisites to get best results on this line of study. There has been no proposition advanced for medical consideration that has a more important bearing upon the future of mankind than does the study of consumption, and means that will accomplish its eradication. A comparison of past and present statistics, and prognosis drawn therefrom, warrants the strongest appeal which can be made to awaken interest in the study of this serious menace to posterity. The physiology of health is to keep the biological forces upon such a high plane of metabolic activity that all functions may be harmonized, and the powers of resistance so strengthened as to resist the onslaught of disease or the approach of degeneracy. When laws have been modified so as to weed out taints, prevention will be as real in result as the present course is chimerical in affect. The necessity of wise legislation for obtaining results will be recognized soon; that great investigator, Education, is certain to call attention to the need of restraint upon causes producing disease. As a prime consideration in prevention every one should study individuality. Take an inventory of physical and vital forces and resistance, conserve and use them wisely. Make sleep and physiological rest paramount. You will find force enough in stock to keep functions moving on a highly vital plane for a century or more. I do not mean for a man to endure a long old dotage. He will be robust and vital until near the end, which he can realize is coming by the cessation of force and vigor. I believe it was Sancho Panza who said: "God bless the man who first invented sleep." Man's future rests largely in sleep! It is then that repair, growth and development are effected. Consequently, full hours of sleep mean perfection and development of strength necessary for conservation of

waning powers. The old saw of the "Early bird catches the worm" can mean the demolition of the worm because it arose too early, therefore, do not fear to give yourself enough sleep or it may be with you as it was with the early worm! These theories are worthy our thoughts. Some of them seem fully to fill prevention's perspective. The details of any special method, whether it be vaccination, quarantine, or any measure applied for preventing infection from obtaining a foothold in a country, or of suppressing one, does not come within the province of this paper. The intention here is to advocate the extermination of germs and all potentials of degeneracy, as the true means of preventing disease. By education the mind inclined toward the science of medicine can have the knowledge unfolded that is needed in development of the high intellectuality required in pursuit of possible prevention. Education will create a sentiment in favor of purifying the social and physical fabric, and preserving health that will unfold to man a knowledge of self, delineate character, and teach our women that perfect physical welfare is the quality with which they ought to be endowed that they may be fitted to become mothers of a people of high type, superior faculties, and large powers of physical endurance. It will teach parents how to rear children to become integers in the problem of continuing the highest type of humanity, that morality may ripen into the best civilization. It will show that science may develop and cultivate the type best fitted to survive, and to perpetuate our kind. Educate, that the masses may learn better ways of living, of thinking, of economizing physical, mental and moral energies to the end that mind may know that disease is not an unavoidable concomitant of environment, but that health should be the normal condition of modern civilization. It is useless to urge any measure of prevention upon people who do not understand the value of a high physical mental and moral plane of health. Such people must be educated and put in appreciative touch with facts relating to causation and perpetuation of disease by germs and virile poisons which can be traced to demonstrable, avoidable causes. Education with its concomitants, health and civilization, favors

the enjoyment of existence and prolongation of life. To elevate the status of education is not an abstract dream or Platonic aspiration, but is an interwoven reality with the life of posterity, and must prevail by its results. Man's improvement is indefinite. I do not believe so much in perfection as in progressive advancement through education. Remember one fact of importance—whatever deteriorates life or lowers vitality should be corrected, that the sum of individual existence may be lengthened. By transmission, that quality will influence progressively the lives of offspring. We have the solution in education, a well ordered scheme of which embracing the scientific application of physiology, biology and hygiene would be a plan of fundamental value in prevention. In the new school of prevention creative genius will proclaim a way realistic in vitality, and any measure not in accord therewith will be relegated to the past. Along with this subject must be considered a matter of much importance: What shall we do with the dead? I do not doubt that tuberculosis and typhoid are distributed from our cemeteries through drainage. If all remains were cremated it would remove from civilization a great evil. In giving the question serious thought, we feel apprehensively interested in the outcome. The germs of some diseases such as those mentioned, are so virile and tenacious that they can exist for years in our cemeteries and become distributed to surrounding earth, and by force of capillarity be transported to some place where conditions would be favorable. They would multiply and eventually be carried to the home of man, taken into the system, and there manifest their presence by pathological results. Cremate the dead of all animal and all vegetable matter that might prove a pabulum for sustaining germ life. By that means alone they can be destroyed. To study the subject of sanitation for its best results is a question of vital consequence. While it has its limits, it occupies a broad field as a factor in prevention. To consider the subject now from another standpoint: When culture-tests and the microscope demonstrate the presence of a transmissible disease steps should be taken to isolate the focus by international agreement. To prevent its

spread through commerce and travel. In the absence of such agreement, it would be well for each country where conditions might favor development of infection to adopt vigorous measures and guard against invasion by quarantine or absolute non-intercourse with infected countries, until the pest could be stamped out, and its absence demonstrated to the satisfaction of pathologists, competent to pronounce judgment upon the conditions. The partial degree of success attending the lax methods heretofore employed demonstrates the possibility of absolute prevention, if all avenues of invasion are guarded and nothing allowed to enter from infected districts. A sum equivalent to the means lost in trade disaster during one epidemic of yellow fever would defray the expense of cleaning up the germ-breeding places of that scourge, and its eradication from the face of the earth! A means will yet be demonstrated which will as certainly prevent yellow fever as vaccination does smallpox. Medical science is well equipped to grapple the subject —what we really need is international harmony and cooperation. We cannot impress the importance of prevention upon a people who are ignorant; therefore the first step is to educate the masses. Yet the perspective of education in its farthest possibilities is infinite. The more you educate mind the more it demands to know. Inquiry and research stimulate possibilities and open new fields for study; it is a never-ending problem with no true solution in sight, therefore, we may expect progressive results without limit or cessation. The physician, chemist, and microscopist should be pioneers in the movement. The physician I know is ever ready to sacrifice pecuniary advantage upon the altar of science, that the light of knowledge may continue to shine, shedding a halo of bright radiance over the field of inquiry, that research may find the jewel in the form of complete prevention of disease. While on this subject it would be well to allude to a vast crime which, next to consumption, is destroying more lives and souls than any other cause. I mean the liquor, opium, and cocaine traffic. A study of its insidious and loathsome results will convince anyone that it is a wide open door to destruction. The physician is the proper one to call atteention to the danger in these drugs as being destruct-

ive to digestion and nutrition. Upon our descendants the saddest blow falls, because the progeny of the drunkard is of poor vitality, inferior intellectually, and a disappointment generally! It is not within the province of this paper to go into the criminology of drunkenness; yet it is a factor which must be eliminated to help perfect the plan of prevention which will result in the improvement of man and make him superior in future to the man of the present. But the pernicious liquor and drug traffic must cease to be an element in degenerating vitality and debasing mind. It is the greatest enemy to an improved posterity now known, except possibly the scourge, consumption, and its congener syphilis. Before I leave this subject I will ask my hearers to ponder well. Try and help formulate a plan to prevent disease from entering the body, that prevention may be demonstrated and posterity enjoy the blessing of a highly perfected life through our interest in their behalf. Shall we admit that progress is at an end in our present idea of prevention? No! let us never imagine that any high purpose or noble thought is ever lost or ended. We may not witness its development, nor see it bloom forth in beauteous perfection, nor reap a rich harvest of result; but when we have sown the seed, with knowledge of result wanted, then, may we gather the harvest of success. That fact accomplished the fondest hope of life will be realized. Do not fail to comprehend the true scope of this subject. Give it deep study and let us hope for favorable opinion that it may not be retarded by unscientific, illiberal criticism. It should attain popularity commensurate with its importance and be so closely studied that its value will impress wherever suggested. We are continually striving after new means with which to cure, when it is apparent to anyone giving the subject careful thought that changes will be constantly occurring because our methods are incorrect. What broad intelligence needs do is to habilitate prevention, and advance it as the means to accomplish results to which no foresight can predict an end. All physical phenomena are interesting. Their sublimity is not obscured by vague inception. Their finality, though shrouded in mystery, is important, and engages our considera-

tion to a greater extent that any subject known. It is of such general interest that we refer to it because we realize it a barrier which must be overcome before we can progress further in our search for perfection. Cast off the serfdom of tradition—pull asunder the manacles which bind us to a past. With faces turned toward the light of Twentieth Century knowledge looking eagerly for further advance, cry ONWARD, UPWARD, until achievement will justify the claim that medicine as a science is above every other in the history of the world! Then the doctor, who stands today with lawyers, statesmen and divines, will easily assume position above all, recognized as the guardian of life and steward of man's happiness, honored as leader by every avocation. Happy in that attainment, aspiration gratified, ambition satisfied, enjoyment should be supreme. Let us feel the heartthrob of progress in the breast of humanity and know that a great harmony has been established in prevention which will exist through all time as the true means of keeping that blessing—HEALTH—above every other attainment! Let the silly irony of skeptics who hold that truth is variable be forever silenced, and in the concert of united effort let sophists sink to oblivion. I tell you earnestly the trend of events points to prevention as the route for future medical thought, and the characteristics of health will be our highest study.

DISCUSSION.

Dr. J. C. LeGrand: I have listened with interest to the paper, just read, and think the author has fully covered the ground embraced by the subject.

The suggestions contained in the paper are sound and valuable, and if carried into execution would result, I believe, in materially diminishing the amount of disease in the country generally.

No question possesses more of interest, or is entitled to more study than that of the prevention of disease, and it is in this field that progressive medicine is destined to win its greatest laurels.

I arose only to endorse the sentiments expressed in the paper, and not for the purpose of attempting any discussion of it.

Dr. J. H. Purifoy: If we had trained physicians in every country neighborhood, precinct, and county, of the State, it would be comparatively easy to limit the spread of infectious and contagious diseases. In the larger cities there are boards of health, whose duty it is to look after such matters, but in the country we have no such arrangement. We need in such places some one who has authority to act, and who will be sustained in the exercise of such authority.

So far as the control of outbreaks of smallpox is concerned, we shall strike at the root of the matter by making vaccination compulsory. Whenever the entire population is rendered immune to smallpox by vaccination, it will be impossible for an epidemic of that disease to prevail.

As to the abuse of alcohol the surest prevention I know is for parents to set the example of temperance to their children. To preach temperance and practice intemperance, or to indulge in even the moderate use of alcoholic drinks, will never cure the evil. Parents must be strong enough to set a good example to their children, and then by proper discipline they can enforce sound precepts.

In regard to the cocaine and morphine habits, I am of the opinion that the profession is largely responsible for them. The hypodermic syringe is a very valuable instrument, and one we could scarcely do without, but it can be easily abused, and, in my opinion, often is.

The promptness with which it relieves pain is very seductive to patients, and, knowing the remedy used, they soon begin to resort to it without the advice of the doctor, and thus the habit becomes established. I repeat that the profession is responsible for many of these cases, consequently, one of the most potent ways of curing the evil is for physicians to abstain from administering such drugs, except when absolutely demanded, and then to keep the patient in ignorance of what is used. In harmony with the line of argument pursued by the author of the paper, I should like to see a vigorous and intelligent effort made to stamp out all infectious diseases, and believe that by such an effort much could be accomplished.

Dr. E. T. Camp: The gentleman who read the paper said that the public should be educated on the subject of preventive medicine. I venture to say that many physicians need education along the same line. Many of them, I apprehend, fail to bear in mind the fact of the contagiousness of tuberculosis, when called upon to treat cases of that disease, and therefore neglect to enforce proper precautions to prevent others from becoming infected.

When the gravity of this disease is borne in mind, such an oversight is highly culpable. Not only should proper precautions be observed to prevent tuberculosis from being propagated from a patient to others, but after the case has terminated, and often during its progress, the premises and every article likely to have become infected should be thoroughly disinfected. This rule should apply not only to tuberculosis, but to smallpox, diphtheria, and all other infectious diseases.

The question of the prevention of diseases possesses great interest for me—hence I gave close attention to the paper and would like to see a campaign waged against disease in accordance with the propositions it lays down.

Dr. W. H. Sanders: From some of the remarks made by the gentleman (Dr. Purifoy) who preceded the last speaker, the inference might be drawn that Alabama does not possess a public health system that extends into all parts of the State, into the remote country districts, as well as into the populous towns and cities. I desire to correct any such impression and to say that Alabama possesses a perfect and complete public health system that extends into every part of her territory, the machinery of which can be set in operation in the remotest country district in the same way as in the most populous city of the State. Indeed, the system extends over all alike, and is absolutely uniform, both for country and city; that is, it consists of a harmonious and coherent whole, built up by means of uniform and symmetrical parts or units.

The unit of the system is the county organization—one for each county—therefore, sixty-six for the State. In the absolute uniformity of these county organizations lies the strength and solidity of the system. They all fit together and therefore constitute a compact and co-

herent whole, founded upon principles in thorough accord with our system of government and logically built up from foundation to dome.

Let us briefly analyze one of these sixty-six county organizations or units, and that will give us a clear and comprehensive view of the system, in so far as its public health function is concerned.

To make the analysis more pointed, we will take this county, although the organization is, as said, the same in every county of the State.

First, a medical society exists in this county, to membership in which every reputable physician in the county is eligible. This society is the board of health of the county, and is endowed by law with certain legal and public health functions. It is not simply a body of physicians voluntarily united for scientific and social purposes, but much more than this—a county board of health, upon which devolves the responsibility of protecting the health of the people of the remotest country neighborhood of this county, as well as of this city. There are about thirty members of this county board of health, a body obviously too large to act promptly when an outbreak of infectious disease occurs. To meet this difficulty the board of health provides a committee of public health, composed of five of its oldest and most trusted members, whose duty it is to exercise general supervision over the sanitary interests of the county, and especially to be on the alert for the first appearance of infectious disease of any kind.

The county board of health or county society also elects a county health officer, whose jurisdiction extends to the remotest corners of the county, and whose especial duty it is to look after the country districts—the very part of the county which the doctor supposed to be unprovided with health machinery. The cities, and many of the larger towns, employ health officers of their own, hence, the health officer of the county is relieved of all responsibility so far as such cities and towns are concerned, and can, therefore, devote more of his time to the country districts.

The committee of public health, composed of five doctors; the county health officer; and the city and town health officers of any municipalities that employ such

officers, constitute the active medical authorities for protecting the health of the people of this county, both in the country and the towns.

Now, to control outbreaks of infectious disease two things are required: Skill and money. The doctors are expected to furnish the former; the county and municipal authorities, the latter. Both must do their part, in order to maintain an efficient public health system.

The doctors of this State and of this county have long signified their willingness to do their part, hence, it only remains for the county and municipal authorities to do theirs, that is, to furnish the money. Wherever the authorities have done this, Alabama's system of public health has been operated with conspicuous success, but where they have done it imperfectly, or not at all, the work of controlling outbreaks of infectious disease has been more or less imperfectly done, or not at all.

Here lies the secret of any apparent failure of the public health system of Alabama, the authorities of the locality where the failure appeared to exist declined to furnish the necessary money. Obviously, disease can no more be suppressed without the expenditure of money than crime can be. Money is just as essential for carrying into execution public health measures as for holding courts to try criminals and to enforce law and order. In this connection attention is called to the fact that the public health system of Alabama is not only logical and complete, but is formulated upon wonderfully economical principles. It exacts more or less work from all of the doctors of the State, and a great deal of work from the State and county committees of public health, for which no renumeration whatever is either asked or received. The only salaries the system provides for is one from the State for the State Health Officer, and one from each of the counties for their respective health officers.

The key to the situation at present consists in providing adequate salaries for the county health officers, and adequate appropriations for enforcing such public health measures as the committees of public health of the several counties may recommend. Some counties have discharged their duty in these respects and in them outbreaks of smallpox and other infectious diseases have always been promptly controlled, but other counties have failed to appropriate the necessary funds, consequently, smallpox has continued to prevail in such counties and

they have remained as foci for the distribution of the disease.

Whilst smallpox has prevailed extensively in this State for the past four years, or more, yet, at any time within that period the disease could have been entirely exterminated within sixty days, or less. To accomplish this result, it was only necessary for all of the counties in which the disease was prevailing to simultaneously wage war upon it. This, the doctors would have done had they been furnished with the means.

The responsibility, therefore, for the failure to suppress smallpox does not rest upon the doctors, but directly upon the authorities who should have furnished the means, and indirectly upon the law-makers of the State for their failure to enact a law making it mandatory on the commissioners of the several counties to appropriate adequate salaries for their respective health officers, and also the failure of the law-makers to enact a law of compulsory vaccination.

But, I only undertook to defend Alabama's public health system, and to show that any apparent lack of efficiency in it is due, not to inherent defects, but to lack of means for carrying it into execution.

No better system could possibly be devised for following out the broad principles for the prevention of disease laid down by the author of the paper, now undergoing discussion. Before taking my seat, I desire to warmly endorse one of the many sound propositions he laid down, namely, that we must continue to educate the public upon the great principles of preventive medicine, and, although our progress may seem slow, in the end we will undoubtedly achieve much.

Dr. T. A. Casey: No more important subject will be presented to this Association than the one now under discussion. The prevention of disease is a science, and should be taught in all high schools and colleges where young men and women are being educated. Doctors should use their influence in this direction, for it is a field in which much good may be accomplished.

It is my purpose to present a paper during the meeting covering much the same subject, it being one in which I am greatly interested.

Dr. L. E. Starr: One of the great difficulties of regulating the sanitary affairs of our State lies in getting the

proper laws passed. Now, I believe that a large majority of our legislators can be influenced by members of this Association, if we approach them at the proper time and in the proper manner.

I have never failed to interest the legislators of my county, nor to get them to assist in everything we asked. If we approach them in the right way, I believe we can get any law passed we want.

Dr. E. C. Parker: One important thing in the prevention of disease is the prompt report of all cases of infectious disease. Such cases should be reported as soon as recognized. Doctors often make the mistake of delaying such reports, and thus allowing time for the disease to spread. In smallpox prompt isolation of the patient, and vaccination of those exposed, will always cut short an outbreak. In suspected tuberculosis the sputa should be examined, and if the suspicion is confirmed all precautions should be taken to prevent others from becoming infected.

THE PERNICIOUS VOMITING OF PREGNANCY.

By Matthew Bunyan Cameron, M. D., Sumterville.
Senior Counsellor of the Medical Association of the State of Alabama.

In the discussion of this subject I shall consider only that form of hyperemesis which is persistent, grave, and in which the stomach seems rebellious to every fluid or solid ingested.

We have in almost every pregnancy a mild type of vomiting and morning sickness, that yields readily to hygienic or medicinal treatment, but the prenicious type of vomiting is a disease so rare that its existence has been denied by some noted men in the profession.

Hohl, of Germany, denied the existence of the affection, and Carl Braun in an experience of one hundred and fifty thousand obstetrical cases never saw a fatal termination. The experience of American, English, and French physicians has been quite contrary to this, as

Doe, of this country, collaborated 48 cases, with 18 deaths; while Geuniot records 118 cases, with 46 deaths; which is quite an appalling mortality.

Recently three cases of this disorder have come under my observation, one of which recovered under the administration of drugs, the production of abortion saved another, while the third died from exhaustion and toxaemia, because consent for operative interference was delayed too long to be effectual. This experience has led to the preparation of this paper, with the hope of directing the attention of the profession to a serious malady in which surgical relief is often too long delayed. The etiology of this trouble is shrouded in mystery, and there appears to be no definite consensus of opinion as to its causation.

In all three of my cases there was a highly sensitive nervous system. One was a hystero-epileptic, suffering with repeated attacks, often of long duration, with a grand ancestor choreic in the extreme.

Another was hypochondriacal, with frequent hysterical manifestations and a decided vaginismus. The third case was a negress, with a nervous system much more impressionable than is generally seen in women of her race. This leads me to believe that women of the hysterical type are much more prone to this trouble than those with healthy nervous systems.

Graily Hewitt was long ago led to believe that uterine displacements were fruitful in producing this affection. His idea was that the nerves of the cervical ganglion were pinched at the angle of flexure, or compressed by the inflammatory changes in the form of the womb. As a matter of fact we know that pathological positions of the uterus are productive of nausea and vomiting in a non-gravid state, especially when there is an inflammatory condition. Hence, it is easy to suppose that the additional excitant of pregnancy would intensify the pre-disposition to this trouble.

Twombley has recently reported a fatal case which illustrates the fact that displacements and faulty positions of the pregnant uterus, retarding its rising up out of the cavity of the pelvis and pressing upon the cervix, are more often the cause of excessive vomiting than has been generally supposed.

H. S. Knight reports a case, rapidly progressing to a fatal termination, which was relieved by the correction of an anteflexion by a soft rubber pessary, and by packing the vagina.

E. P. Davis supports this etiological factor in a recent contribution to the American Journal of Obstetrics. He says that "in a considerable number of these cases the uterus is sharply anteflexed and the cervix greatly thickened. In other cases the womb is retroflexed or retroverted."

While acknowledging that displacements are often coexistent with pernicious vomiting, and appear to be causative, yet, it must be only as contributory factors that they twang the tense chords of the neurotic.

In the cases I have seen, and in those of many others who have contributed to the literature of the subject, no abnormal position of the uterus was detected; therefore such cannot be accepted as the sole factor in the causation of pernicious vomiting. J. H. Bennett has directed attention to pathological conditions of the vaginal portion—inflammatory states, and especially excoriations and erosions of the external os—in their causal relation to this disorder. The great relief sometimes experienced from local treatment of erosions, and by divulsion of the cervix, appears to bear out this idea. One of my cases had previously passed through her first pregnancy without much discomfort from nausea. In her second pregnancy she had pernicious vomiting from the second month. Upon the introduction of the speculum for the purpose of dilating the cervix, the os was found very much eroded and inflamed. Local treatment and dilatation of the cervix gave almost complete relief until an attack of influenza, attended by a severe otitis media, reestablished the trouble, with all its distressing severity.

Some investigators have by examination of the blood in this condition established the fact that there is a profound toxaemia. The red blood corpuscles are diminished in number, and there is a decided leucocytosis; the urine often presenting evidence of intoxication by its high color, specific gravity, and the presence of albumen. Evidently the toxins, whatever may be their nature, are absorbed from the intestinal canal, circulate in the blood, and manifest a great affinity for the vomiting center in the medulla. This vomiting center has been lo-

cated by Tumas, from experiments on dogs and cats, "in a small space before and behind the calamus, and in the deep layers of the medulla, near to or in close communication with the center which, by inference, presides over the organs of generation."

Here we have a double reflex action from the two centers involved, the one by its action on the nervous system, producing the hyper-emesis, the other, through its reflex action on the uterus, tending to increase the production of the toxaemic substances.

Intra-pelvic pressure is evidently sometimes responsible for this trouble, as it very often subsides when the uterus rises out of the cavity of the pelvis. Whether this be from the effect on the nervous or circulatory systems, it would be hard to decide.

Pressure upon the nerves would very probably excite an already intense neurotic condition and cause an explosion.

Monin believes that this disorder is due to abnormal gastric secretions, and treats his cases very successfully with bicarbonate of soda.

A pre-existent gastritis, or gastric ulcer, or an intestinal catarrh, is doubtless aggravated by the puerperal state, but these conditions could hardly be considered as originating the trouble.

The diagnosis of pernicious vomiting of pregnancy is apparently easy, but in reality it is sometimes very difficult. A positive conclusion that pregnancy exists must be reached, through bimanual examination and other investigations.

No opinion should be expressed and no treatment instituted until this has been done. If satisfied on this point there are still to be eliminated some other pathological conditions, whose co-existence might occasion the obstinate vomiting. Cazeaux gives the history of a fatal case of alleged hyperemesis of pregnancy in which the autopsy disclosed tubercular peritonitis and the absence of pregnancy.

Trousseau induced abortion in a case in which the autopsy revealed cancer of the stomach.

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these diseases should be carefully sought for before, by their elimination, we may rest secure in the correctness of their diagnosis.

The treatment of this serious disorder is befogged by all the myths of empiricism. The long list of remedies for it, arrayed in the text books, is suggestive of their futility. The procedures recommended may be classified as hygienic, medicinal, and surgical.

Hygienic management is beyond doubt of great importance and upon the strict observance of the rules laid down by the physician for the control of the patient's exercise, diet, and surroundings, the termination to a great degree depends. Absolute rest in a darkened room is desirable, and the head should be on a lower plane than the body. It should not be raised even to take water, nourishment, or medicines, but they should be administered through feeding tubes. Perfect quiet should be enjoined. No inquiring friends should be admitted, and the absence of meddlesome mothers who have gone through mild cases of morning sickness is especially desirable.

The diet should be of a liquid character, such as peptonized milk, or beef juice, in conjunction with lime-water.

When this is constantly rejected and the nausea and retching are unintermittent, we are obliged to resort to rectal feeding in order to support the much-needed vital powers. From two to four ounces of peptonized milk at the temperature of the body should be administered per rectum every four to six hours.

Peptonized milk given in this way has proved quite satisfactory in my experience. I have succeeded, by its use, in sustaining the strength of a patient for nearly four weeks. It requires considerable perseverance and tact to properly feed a patient by the rectum for a long time, and wherever the conditions will admit, the aid of a trained nurse will be very valuable. The enemas should be given high up in the rectum, through a soft rubber catheter of large size. The patient should be in the Simms' position, and the anus should always be compressed for a few minutes after the withdrawal of the catheter.

The syringe should be of hard rubber with a cylinder of about four ounces capacity. The condition of the skin,

kidneys, and bowels should be closely watched and appropriate measures employed to remedy the least deficiency of action in either.

In the administration of drugs for the relief of this trouble we are almost certain to meet with disappointment, no matter what therapeutic route we travel. Carbolic acid, bismuth, cocaine, oxalate of cerium, nux vomica, pepsin preparations, the much-vaunted ingluvin, and a host of other remedies have all failed in my hands. In hyperemesis of moderate degree they seem to have a curative effect, but in prenicious vomiting they are not only useless but aggravating. Chloral and potassium bromide are the only drugs that I have found to merit employment. One of my cases gradually improved under their administration, and finally recovered when I was on the point of emptying the uterus. They should be given combined, by the mouth, if possible, but, if not retained, the dose should be mixed with starch water or glycerin and administered as an enema. Subcutaneous saline injections are highly recommended by Bacon, upon the ground that they dilute the blood, increase vascular tension, and eliminate toxins through the renal and intestinal emunctories. In cases of purely toxaemic origin such treatment should be ideal. It should always be used as a preliminary measure to the rapid emptying of the uterus where there is a marked degree of weakness or emaciation. Washing out the stomach may, also, be tried in the earlier stages of the disease. J. P. Oliver, in a recent publication, reports the relief of a serious case by electricity. He used the positive and negative poles, alternately, up and down the spinal column and over the stomach.

I desire to warn the profession against the use of morphine in this trouble. It is a delusion and a snare; a delusion, because the relief is temporary and fleeting; a snare, in that it induces you to continue its use, hoping for better things, until you have frittered away a life that the surgeon's art would have promptly saved. Twice, I have been lured into its employment, yielding, with protests, to the appeals of patients who refused to permit surgical intervention. In one case death closed the scene; the other consented to an operation after weeks of opposition, and is now fighting the great battle for recuperation, won by very few. I believe it is the

duty of a physician, when, in his opinion, seconded by that of a competent consultant, the case calls for the induction of abortion and the advice is rejected by the patient in the hope that she may be tided over the emergency by morphine, to promptly retire from the case.

We now come to the surgical treatment of this disorder.

First, all uterine displacements should be sought for and corrected.

This must be done in the most gentle manner possible.

The soft rubber pessary, with thorough packing of the vagina, will be as harsh means as we are justified in using. The treatment of erosions with pure carbolic acid and iodine, and by means of vaginal flushings with hot water, is often beneficial. The divulsion of the cervix, about one inch antero-posteriorly and half an inch laterally, has often, in some hands, been entirely remedial. But there are cases that show no relief from the employment of any or all of these measures. The retching and vomiting continue, the rectal food is expelled or is insufficient to sustain the strength of the patient, the pulse grows rapid and weak; the respirations are too frequent, albumen is often present in the urine, and progressive emaciation appears.

Confronted with such a condition, the physician has to deal with the most serious problem, the gravest responsibility, to which a member of the profession can be subjected. He must rise to that heroic devotion to duty which will compel him to advise the sacrifice of the life of the unborn child to save that of the mother, or he must sink into a criminal apathy that will surely cause the death of both. There are some who hold that the production of abortion is never justifiable in this trouble. They seem to think that because some, after being desperately ill, recover without operation, all will do so. They ignore the record of numerous deaths from pernicious vomiting that annually occur.

Bacon says: "The production of abortion is never indicated, for when it is safe and effectual it is not necessary, and in extreme cases it adds greatly to the danger." If he had been in charge of two of my cases I would with reluctance be the bearer of his conscience.

It is criminal to wait until the patient is moribund before resorting to the operation. When neither the

stomach nor rectum will retain food, and the pulse continues over 110; when there is much emaciation and profound alterations in the blood, the uterus should be promptly emptied.

How shall the uterus be emptied?

In those cases where there is enough vitality to render it safe the rapid method is to be preferred. Under the strictest aseptic conditions, the patient being chloroformed, the cervix is widely dilated with steel dilators, the foetus and membranes are removed with the fingers or with instruments, and the decidua scraped away with the sharp curette.

The uterus should then be washed out with sterilized hot water, and thoroughly packed with iodoform gauze. The gauze should be removed within fourteen hours and the vagina douched with an antiseptic solution. When there is marked depression the slow method is better.

My way of doing this is to slightly dilate the cervix, rupture the membranes, and introduce within the womb a soft rubber catheter that has been boiled for fifteen minutes; then, securely pack the vagina to guard against hæmorrhage. Usually, upon removal of the packing twenty-four hours later the foetus will be found expelled. By rupturing the membranes you seem to save your patient much pain that would ensue if they were left intact. If all the placental and deciduous mass is not thrown off at the time the foetus and membranes are expelled the vagina must be kept packed, and ergot given until the uterus is thoroughly empty. Delay is dangerous, and I appeal to the profession to come at once to the rescue of the woman when the danger signals are hoisted, and not wait until the lamentable catastrophe becomes unavoidable.

DISCUSSION.

Dr. E. B. Ward: I can not let this important subject pass without making some remarks upon it. I do not intend to discuss the medicinal treatment of the affection, for I claim that this kind of treatment often results in failure and leads to delay, when such is dangerous. As I understood the reading of the paper it was the pernicious form of vomiting that was dwelt upon. How often are we confronted by these formidable cases and look anxiously to the

materia medica for help only to be disappointed! Dilatation of the cervix, application of iodine to the os, cauterization of cervix, all of these have been tried with poor success. I claim that the only safe and certain cure for these rebellious cases is in the hands of the gynecologist, and consists in emptying the womb. Of course, I do not mean to convey the impression that I would not try medicinal treatment in the outset, before the symptoms become grave; these failing, I would without delay resort to surgical interference. The reason why so many of these cases terminate fatally is that we fail to recognize the necessity for interference until it is too late. We should exercise our own judgment and good common sense, meet the emergency face to face, recognize its gravity, and act accordingly. Do not wait until the strength of the patient is fast leaving her, her life slowly ebbing, before you resort to this operation. If this is done in time the relief is immediate and certain, and attended with very little danger. A prompt induction of abortion when done sufficiently early is always attended with success. Very properly we all shrink from the idea of destroying an unborn babe, and condemn in the strongest terms the indiscriminate induction of abortion. But, in these grave cases we have no time to moralize, the life of the mother is at stake. Should we then permit her life to be sacrificed upon puritanical ideas or strained conscientious scruples? By surgical interference, I mean the rapid dilation of the cervix with steel dilators and the thorough emptying of the uterus with the sharp curette, we can save the lives of these patients. I do not favor the slow process of dilatation with tents, or the packing of the cervical canal with gauze. This is too dilatory. Proceed at once to the use of the curette, after rapid dilatation. One authority states that the indications for this procedure are: When the patient shows signs of exhaustion, as manifested by rise of pulse to 115 to 120 and the vomited matter becomes dark brown or blackish. It is not always necessary to put the patient under a general anaesthetic to curette. I have often by the administration of morphia and strychnia hypodermically obviated the risk of giving chloroform. I would say that there is no excuse for letting these cases die, when, during this era of advanced gynecological practice, we can resort to an absolute measure of relief which, when applied with perfect

aseptic technique, is free from all danger. Act promptly, then, and you will save your patient; delay and temporize with drugs, and death will often claim a victim.

Dr. W. G. Harrison: I wish Dr. Ward had read his paper on "Reflex Neuroses in Women" right here, as I believe there is a close connection between that subject and the one now under discussion. In my opinion the pernicious vomiting in pregnancy is caused by a displacement of the womb.

I regard hypodermoclysis as a valuable remedy for this distressing trouble, and have used it in several cases with decided benefit, and have seen reports of its good effect when used by others. I feel justified in recommending it to the members of this Association as a remedy worthy of trial.

Dr. B. G. Copeland: I notice that the essayist mentioned a number of various remedies for pernicious vomiting. All of them are good, but I notice that really up to the present date there is absolutely not one new idea advanced. I know of none. You find the same old carbolic acid, bismuth, and soda. It strikes me that if there was so much attention to be paid to this one trouble that our more recent text books would point out this. When there is nausea and it becomes alarming, the idea is to empty the womb. When a woman suffers with nausea, a hypodermic of morphine will not help her. With pernicious vomiting I should not hesitate to bring on an abortion, but I should like to have the benefit of consultation before I did it. We should certainly sacrifice the life of the one that really never existed rather than the life of the mother, and I should not wait too long. I know of several cases where the result has been fatal, and the families blamed themselves for the final termination. I should dilate the womb and by observing all the precautions you can control the hemorrhage. Of course every doctor should first ascertain the cause of the nausea, which is generally due to the pressure of the child.

Dr. Cameron (closing): In my paper I simply undertook to discuss the subject of Pernicious Vomiting in Pregnancy, and did not undertake to point out the differential diagnosis betwixt that affection and vomiting that might occur in cancer of the stomach. Of course the two affections might coexist in the same patient. Further, pregnant women might be greatly troubled with vomiting due to brain disease, or to some other affection; that is, cases arise in which the attending physician could not come to a positive conclusion as to the cause of the vomiting. As said, it did not come within the scope of my paper to deal extensively with the subject of differential diagnosis. Neither did my paper refer to the modified form of vomiting in which the patient has spells of vomiting in the morning, which, although more or less troublesome, do not constitute pernicious vomiting.

Whenever a physician has a case of the latter kind under his charge and makes up his mind that nothing short of emptying the womb will save the life of the woman, and so advises the patient and her friends, if his advice is disregarded, he should withdraw from the case and let another physician be called. If the second physician gives the same advice, and insists upon it, the lady and her friends will be more apt to follow the advice than when given by the first attendant.

THERAPEUTIC USES OF WATER.

By Andrew McAdams Stovall, M. D., Jasper, Ala.

Grand Senior Counsellor of the Medical Association of the State of Alabama.

Hydrotherapeutics may be defined as the method of applying water for the relief or cure of disease.

It includes the application of water in any form as solid, fluid, or vapor; from ice to steam, internally or externally. Some seem to think that Hydrotherapeutics is only the use of cold water.

In the form of steam it has a styptic action; and the aseptic uses of hot water in surgery, with its resorbent effects in gynecology and surgery, are well known.

Its application in gastric, rheumatic, and intestinal troubles and in meningitis, render hot water as important a hydriatric agent as cold water.

The origin and growth of hydrotherapy form one of the most interesting chapters in the history of medicine. They illustrate how prejudice may thwart progress and how enlightened physiology and pathology have tended to reinstate a valuable but neglected remedy.

I will first consider the general effect of water, when introduced into the system. The importance of water for the maintenance of the human organism is a well-known physiological fact. It not only furnishes a solvent for the elements required in the life and functions of the tissues, but it serves to maintain that degree of tension which is required for the proper circulation of the lymph stream.

Glax has furnished the most recent investigations on the subject.

The pulse is affected according to the temperature of the water taken, cold water reducing the frequency by from six to thirty beats.

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F, this being drunk in doses of 9 oz. at intervals of thirty minutes.

Warm water increases the pulse by from ten to sixteen beats. The character of the pulse is affected by the drinking of large quantities of water.

Glax says the changes in the pulse ensue too quickly after the drinking of water of different temperatures to be the result of an increase of water in the blood; they are therefore very probably the result of a reflex action upon the vaso-motor centers. The latter effect was actually demonstrated by the experiment of Spallitia and Tomasini, who found after the inhibition of cold water a narrowing of the cutaneous vessels.

It may, therefore, be stated with some degree of positiveness that the internal use of cold and of warm water has a definite influence upon the vaso-motors not unlike that produced by their external application.

The diuretic effect of water does not depend upon the amount imbibed, as is erroneously supposed, but rather upon an increase of blood pressure produced by the irritant action of the cold and the consequent increased rapidity of the blood streams in the kidneys. For this reason the diuretic effect is absent when the water is drunk luke-warm or when the heart is not sound. Hot water, having the same irritant action, produces the diuretic effect.

From the above mentioned physiological facts with regard to cold, warm, and hot water, when taken into the stomach, the application in disease is evident.

When cold water is taken into the stomach its primary effect will depend entirely upon the condition of the alimentary canal and the constitutional state of the person who takes it.

In the majority of healthy individuals, if not all, the stomach in the morning and before taking food is contracted so as to present the appearance of a tube, the inner walls of which are so nearly in contact that its caliber is considerably less than the small intestine, except when the latter is extremely contracted.

The tubular stomach curves obliquely downward and to the right from the cardiac to the pyloric orifice.

Under this condition the water will run directly through into the small intestine, its only effect being by

the sudden chill to exert some influence on the tone of the blood vessels and the gastric mucus coats while washing through whatever mucus or particles of food that do not cling to the walls of the stomach, and through reflex action produces a diuresis independent of the amount of water drunk or absorbed. In addition it may cause an acceleration of the heart-beat, increased arterial tension and greater vigor of the inspiratory act. On the intestinal tract it may cause increased peristalsis, and, frequently, evacuation of the alvine contents. In other cases where relaxation of both the muscular walls of the blood vessels of the stomach, or of the stomach and intestines, is great, such as may result from excessive eating, indulgence in stimulants, or great prostration of the nervous system, or from over work or long-continued anxiety, normal reaction may be impossible, or at least delayed until the water which is taken has slowly passed through into the intestines; when another dose may have the desired effect. It may happen that the water first taken may produce nausea and vomiting, the stomach being relieved of its abnormal contents.

The effect of hot water, taken in the morning, also varies according to the condition of the alimentary canal and constitution of the subject. In the healthy condition, previously described, in which the stomach is contracted to its tubular shape, the vessels are not unduly relaxed, and the nervous system is so refreshed by rest and sleep that it readily reacts to normal stimulation, the heat may prove to be the reverse of beneficial. If the water be simply warm, it will, in all probability, induce nausea, while, if hot, the over-stimulation may cause an undue secondary reaction, with relaxation of arteries, over-secretion of mucus, and, perhaps, flatulence. This secondary relaxation may prevent the intestinal evacuation, which would relieve the distress.

However, when there is a pathological relaxation and atony of the muscular and nervous apparatus, with hypersecretion, distension, and, as a rule, flatulence, the hot water may have just the stimulant effect which is needed, and give as good results as cold water, or better. This is more particularly the case in debilitated conditions, such as chronic alcoholism.

Recently I had a case of chronic alcoholism, with gastric catarrh, cirrhosed liver, and abdominal ascites. The

patient could not retain anything on his stomach. At last I succeeded in inducing him to drink a glass of hot water every half hour, the stomach was relieved, the bowels moved freely, the circumference of the abdomen was reduced six inches in 48 hours, fermentation of stomach was relieved and the patient could take nourishment.

The constitutional effects indirectly induced by the drinking of cold (or hot) water are of course those associated with improvement of digestion.

The constitutional effects directly induced by the drinking of cold (or hot) water are slight increase of vascular pressure, increased flow of urine and at times a laxative effect upon the bowels, increased secretion of the glands of the alimentary canal, and, as a result of the discharge of their secretions, the flushing of excretory organs, particularly of the kidneys, which carry off so much of the effete matters resulting from metabolism.

The therapeutic uses of water when given internally, either by the mouth or rectum, are partly indicated by what I have already said:

1st. In functional disorders of the stomach and intestines, especially in chronic gastric, or gastro-intestinal catarrh, and in some cases of constipation in flatulent conditions, or catarrhal irritability, causing irregularity of the cardiac rythm or palpitation.

2d. In lithemia, accompanied by acid, high colored, urine, the flushing of both the alimentary and urinary tracts, with largely increased diuresis, irrespective of its increasing the amount of circulating fluid in the blood vessels, does actually, as it is popularly expressed, purify the blood.

The application of water upon diseased surfaces and in cavities is termed irrigation, because the contact of the water with the surface treated is brief and its action chiefly local.

Irrigation of the stomach is called lavage.

In infants, next to proper regulation of diet and hygiene, is irrigation of the stomach, for by this means you remove all food bacteria and fermenting material. Thus, it is valuable in all gastro-intestinal troubles of children.

Baruch uses lavage of the stomach for diagnostic purposes. He says: "When a case of chronic dyspepsia

presents itself, it is my custom to bid the patient eat a full meal at 12:30 p. m. and present himself at 5:30 for exploratory irrigation of the stomach with tepid water. The stomach should be thoroughly washed out, even if several quarts of water are required, but no larger quantity than one pint should be introduced at one time. The washings should be carefully inspected, when it will be readily discovered whether the patient has masticated his food thoroughly and whether portions of food have remained undigested. Thus, a clew will be afforded the physician as to the actual digestive powers of the patient, and the latter attains a valuable guide for future conduct. If the washing contains mucus, it is important to distinguish between stomach and throat mucus. The former is a thick, tenacious, brown mass, which floats upon the surface of water like the scum on the surface of a pond; the throat mucus is thin, transparent, and quite abundant, being the result of iritation, by the tube, of the pharynx and oesophagus. The quantity and quality of the stomach mucus indicate with some accuracy the condition of the gastric mucus membrane. Its rapid or slow disappearance, under repeated irrigation and other treatment, indicates the character of the disease affecting the mucous lining; and the progress of the case under such treatment is much more reliable than other treatment that can be prescribed for these usually hypochondriacal patients.

In dilatation of the stomach, not due to stricture, but simply to gastric atony, the case can be cured, or greatly relieved, by irrigation of stomach, five hours after a meal, either before breakfast or dinner.

I know a physician who was in bed for months with dilatation of stomach, and several thoroughly competent physicians had attended him. Dr. W. H. Johnson visited him and suggested washing out the stomach; the result was recovery, or at least sufficient relief for him to be up and to do some practice. It is useful in nervous dyspepsia, gastralgia and in the fearful pains of gall stones. Baruch says that in a case that occurred in his own family not only was the pain relieved but that the gall stones were found in the stools next morning.

The first case of ileus successfully treated by gastric lavage was presented by Kussmaul. The patient was admitted in March, 1882. He had been treated by the

most approved methods for eight days. The stomach was thoroughly washed out, feculent masses were evacuated and the irrigation was repeated every three or four hours until the water came clear. Then, the patient fell asleep for the first time, and on awakening passed a thin yellow stool. No further treatment was necessary; recovery was complete in five weeks.

The second occurred a year later. Here again, all remedies had been exhausted for nine days without result. Laparotomy was determined upon, but Professor Lucke, the surgeon, requested Kussmaull to see the patient before operation. One large irrigation of the stomach removed immense masses of feculent matter, and was followed by sleep, which large doses of morphine had failed to secure.

The publication of these cases aroused so much attention that gastric lavage was at once added to the remedies for ileus.

In a discussion of Prof. Bordelen's paper on "Ileus" at the Berlin Medical Society, Prof. Henock said that inasmuch as an exact diagnosis of ileus is often impossible, it is the duty of the medical attendant to resort to gastric lavage. He had observed only one case, but the result was so remarkable that it made a strong impression upon him. He would, therefore, always regard it a great sin of omission not to practice lavage in the early stages of this malady.

Dr. C. D. Spivak, in The Journal of the American Medical Association for April 13th, 1901, in his conclusions of the paper entitled "*Lavage of the Stomach a Therapeutic Agent in the Treatment of Habitual Constipation*," says: "In a preliminary communication I wish to call the attention of the profession to the following statement. 1st. A certain percentage of individuals suffering from habitual constipation are apt to have a spontaneous movement of the bowels the following day after the stomach has been washed out for the first time. 2nd. The majority of such patients will eventually recover the normal functions of the bowels if lavage is continued daily for two or three weeks, and, later, at greater intervals. 3rd, The best results are obtained by using cold water, or hot and cold water alternately. 4th, The best time for such lavage is an hour before breakfast.

Enteroclysis is the use of large quantities of water in the large intestines by means of a long, rectal tube. It is curative in many cases of diarrhœa and dysentery, removing the materials of decomposition and pathological elements.

By flushing the colon with large quantities of hot water, and using half a pint of hot water and retaining it by lying down, you will have a safe and powerful means of causing the kidneys to act freely. In entero-colitis, by flushing the large intestines you remove all decomposing material, cause the kidneys to act freely; if cold water is used, the temperature is lowered and the child that was restless when you commenced goes to sleep for one or two hours. To do this in children, place the child upon its back, have an assistant elevate the buttocks by lifting up the feet, let the colon fill by gravity, then let it escape per rectum.

Cold enemata or irrigations are regarded by Dr. Kemp as dangerous in renal diseases, but hot irrigations are useful in uræmia and renal insufficiency.

The external application of water may be classified as follows:

1. Ablution, 2. Half bath, 3. Affusion, 4. The sheet bath, 5. The cold bath, 6. The wet pack, 7. The wet compress, 8. Full bath, 9. The douche.

As it will be impossible for me to describe all of these methods and explain them fully I will only attempt to describe the full bath or the bath as used by Brand in the treatment of typhoid fever. I will describe a bed-bath devised by Dr. A. C. Haven, one that can be constructed at a cost of from seventy-five cents to one dollar. Dr. Haven described it as follows:

Tie a loop of rope around the head-board, another around the foot-board, and connect by two parallel ropes; attach the oil cloth with clothes pins, and you have as comfortable a bath as the most expensive. The loop around the head board and foot board may be dispensed with in metal beds. Four feet of garden hose with a wooden plug in one end makes an excellent syphon.

Technique. The full cold bath is administered as follows: The patient receives a stimulant. He is undressed and a light napkin is applied to cover the sexual organs; his face is now bathed with ice-water, and if too

feeble to step into the bath, the water at 56 degrees, he is lifted in by two assistants, with the greatest gentleness. As he is lowered into the water, he gasps and shudders a moment and perhaps cries out.

But, gentle reassurance by word and deed, quiet demeanor, devoid of haste, and the absence of all actual force or argument to resist his natural desire to escape from the seemingly heroic treatment rarely fails to quiet his apprehensions. Friends or relatives must be advised to leave the room, as their presence would increase the anxiety of the patient and render him more resisting to injudicious and unavailing explanations. If an air cushion has been suspended at the head of the tub, it will afford a resting place for the patient's head; a large water cushion makes a comfortable rest for the nates. In the absence of a support for the head the nurse will hold it up with the left hand while with the right gentle friction or chafing will be practiced over successive parts of the body. This may be done by an assistant, some member of the family, or a friend. Care should be taken that every part of the body (except the lower part of the abdomen) receives the benefit of these frictions, which are regarded as of supreme importance by the originator of this method, in preventing chilling, collapse, cyanosis, and heart-failure. The effect of this continuous gentle chafing is a suffused redness, which is in marked contrast to the previous pallor of the surface, and demontrates that the calibre of the superficial vessels is being considerably enlarged. As friction is executed upon successive parts of the body, we really manage to maintain a constant contraction and dilatation of the peripheral vessels, the former being accomplished by the contact with the cold water in motion, the latter by the friction and its attendant reaction. Complaints of chilliness must not be regarded as an indication for removal of the patient from the bath, unless it be accompanied by decided chattering of the teeth; the former is voluntary and may be emotional, the latter is usually involuntary. A small pulse, a cyanotic or shrivelled condition of the hands, are regarded by the inexperienced as a warning to remove the patient from the bath before he has received its full effect. These symptoms may be due, it should be remembered, to the local action of the

cold upon the superficial vessels, and need not be regarded as threatening, unless the face becomes cyanotic. Often the finger nails become cyanotic when the patient grasps the edges of the tub in his efforts to hold himself while shivering. Pressure against the edge of the tub prevents return of the venous blood. All of these signs may be fallacious. Cyanosis of the face, however, is a manifestation which demands cessation of the bath. Not being submerged, the face can be rendered cyanotic only by actual infeeblement of the heart's action, a condition which is exceedingly rare when the bath is administered with friction. That a small pulse is not an indication of heart failure will be evident to the reflecting observer from the fact that it becomes less rapid and compressible, having lost its dicrotic character.

Before the termination of the tub bath, the patient's bed should be made ready in the following manner: A pillow covered by a towel being placed under its upper portion, upon the blanket is spread an old linen sheet. Several hot water bags or bottles are prepared for the feet, which are usually cold after the bath. A bath being finished the patient is gently lifted out, the napkin covering the sexual organs is rapidly dropped, and he is placed upon the previously prepared linen sheets, so that the upper edge extends above his shoulders to the nucha. Being laid upon the sheet so that his nucha touches the upper edge, the sheet is brought around the body. A fold being pressed in between the arms and the body, and between the lower extremities, with the view of preventing appoximation of two body surfaces, the blanket is now wrapped around the patient. If the temperature has been high, above 103 degrees in the rectum, the patient is allowed to lie in a sheet from five to ten minutes; if the temperature is lower, he should be dried at once with the sheets and afterwards wrapped in a soft blanket.

In either case, hot water bottles may be placed to the feet. Usually the patient, who has been restless previous to the bath, will fall asleep. In some cases shivering may continue until reaction ensues.

Prolonged shivering after a cold bath points to some defect, either in duration or temperature. The former must be diminished or the latter increased, or both. During and after the next bath, more attention should be

feeble to step into the bath, the water at 56 degrees, he is lifted in by two assistants, with the greatest gentleness. As he is lowered into the water, he gasps and shudders a moment and perhaps cries out.

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Prolonged shivering after a cold bath points to some defect, either in duration or temperature. The former must be diminished or the latter increased, or both. During and after the next bath, more attention should be

paid to friction and to the administration of stimulants in order to further reaction by vis a tergo. The application of heat to the extremities is objectionable, because it produces artificial heat internally, and its necessity indicates some serious defect in the mode of application of the bath if it recurs after several baths. This is the ideal bath of Ernest Brand, of Stettin, for the treatment of typhoid fever.

In a discussion of tub bathing in typhoid fever by the New York Academy of Medicine, Dr. A. B. Ball said, "the reason that the doctors at Bellevue, including himself, had given up the bath treatment some years ago, was that they did not employ rubbing; everybody who had tried the most recent method, adding friction, had been convinced that there was no other method so valuable." Hare says, "The vaso motor system is made up on the one hand of the vaso motor apparatus, and on the other of the blood vessels themselves. The resistance offered to the heart by the properly acting vaso moto system through its influence on the vessels, is identical with the friction offered to the driving wheels of a locomotive. The locomotive is intended to meet and stand any resistance, and if the resistance be removed by slippery rails the wheels fly around ineffectually, racking the machinery and destroying its usefulness."

From the above some important diagnostic and therapeutic facts may be learned: First, that a rapid pulse may be due in no way to a disordered heart, but to vasomotor relaxation; second, that the proper way to treat this rapid pulse is to put sand on the track and increase the resistance and not make more stream or give digitalis which will only cause the engine, or heart, to work away on slippery rails with more wear and tear, and make no progress."

The cold increases this resistance.

While I have imperfectly presented this subject, I hope that such attention has been called to it as to elicit discussion.

I have freely made use of "Hydrotherapy, by Simon Baruch." Foster's Practical Therapeutics. Hare's System of Therapeutics.

DISCUSSION.

Dr. E. P. Nicholson: I agree entirely with the views expressed in the paper as to the value of water in the treatment of disease, but when administered internally, I wish to call attention to the vital importance of knowing that the water is pure and not itself likely to cause disease.

When any doubt whatever exists on this point the water should be boiled before being administered. This would, in my opinion, prevent such diseases as are often caused by impurities in water, especially epidemics of diarrhoea.

Dr. I. J. Sellers: Water is essential as a therapeutic agent, both to physicians and surgeons, and in many cases where drugs fail, it relieves. Uremia, many of the diseases of children, typhoid fever, spasms, meningitis, and pneumonia, may be mentioned as some of the diseases in which baths may accomplish more than drugs.

After alcoholic debauches, where vomiting is constant, no remedy gives more relief than flushing the stomach with warm water.

OVARIAN CYSTS.

By Robert Sommerville Hill.

Junior Counsellor of the Medical Association of Alabama.

As this occasion will not admit of a full discussion of ovarian cysts I will confine my remarks to that variety which may be termed the true ovarian cystoma.

According to Fritsch the proportion of parovarian to ovarian cysts is a fraction more than 11 per cent; Kelly's clinic, and Schauta, give 9.1 per cent. Olshausen claims that 95 per cent. of all ovarian tumors are cysts and of these 3 per cent are dermoids. In the words of Kiwisch —"the formation of cysts in the ovary is one of the most frequent pathological illustrations which are met with."

Notwithstanding their frequency and the energy that has been expended in the study of their pathology, no universally satisfactory classification has been made, nor have their anatomic origin and etiology ceased to be questions of dispute. To make clear the views I wish to embrace in this article on the last two questions it is necessary that I should outline my impression of the formation of tumors in general. They are growths produced by an activity of embryonic tissue beyond the physiologic limitation or requirements of the organism and consist, primarily, of cells and a stroma of connective tissue. If in the active tumor-forming embryonal tissue there is a predominance of the elements of the epi- and hypoblastic cells, there will be developed a tumor of the cellular type, whereas, if the elements from the mesoblastic cells predominate a connective tissue growth will be produced. Observation teaches us that the parts of the organism which are formed by the most complicated tissue changes in the embryo are most frequently the locations of tumorous formations. This fact gives support to Cohnheim's claim that active embryonic tissue, productive of a tumor, is of congenital origin—having been displaced during cell differentiation in the embryo—a theory that has more adherents than any other that has been advanced to explain the presence of neoplasms. Senn maintains that tumor forming embryonic tissue may also be of post natal origin. Pathologists are generally agreed that no change in tissue structure can take place without its cells being first reduced to an embryonic condition. If this is true, why may not, as is claimed by Senn, a matrix of post natal embryonic tissue be formed and, as it were, stored away in the parts to be afterwards aroused, by irritation, local or general functional activity, to supernatural tissue proliferation? It is not uncommon to find tumors in areas that have been subjected to injuries but which, in many instances, have undergone, seemingly, the usual repair. If the tumor is developed during the process of repair, the explanation could very well be that the injury aroused to activity a matrix of embryonic tissue of congenital origin; but when the growth is subsequent to a restoration of the parts, Senn's theory is, to me, decidedly more acceptable. Even in the former case, it seems to me, if the tumor

"correspond to the type of tissue" in which it exists, it can with equal, if not more, reasonableness be maintained that some of the cells, which were reduced to an embryonic state, for the purpose of repair, were arrested before becoming mature tissue and formed the matrix of embryonic tissue which produced the tumor. As an explanation of the embryonic cells, be they of congenital or post natal origin, remaining for a variable period of time in a latent state, it has been assumed that their activity is resisted by the general condition of the organism, as well as by the local condition of the tissue in which they are deposited. The nearer normal the general systemic function and the special function of the tissue in which the tumor-forming cells are located, the more effectual is this inhibitory force. It follows, therefore, that any condition which directly or indirectly contributed to the departure from normal, of the general organism or of the local tissue, may be considered a negative cause of the embryonic cells undergoing active tissue proliferation. I referred above to the general and local functional activity acting as excitants to a matrix of embryonic tissue. This claim has been based on the fact that tumors, excepting carcinoma, are most frequently developed during the period of greatest general or local functional activity. I do not, however, believe that this is due to normal physiologic activity, but rather to a departure from it. On the theory that in direct proportion to the magnitude of a task to be accomplished is the liability of the means for its accomplishment to become temporarily or permanently deranged, we should expect cell vitality to be most frequently disturbed, and consequently abnormal manifestations during the period of greatest functional activity.

I wish now to call your attention briefly to the development of the ovary and the process by which the ovule is liberated. Within a few weeks after fecundation occurs, the ovary is represented in the embryo by a group of cells, which subsequently, are separated into sub-groups by connective tissue. This tissue is first noticed sprouting up from the base of the cells—an area which represents the medullary portion of the ovary. As the separation nears completeness—spaces filled with cells being formed—other collections of cells appear on the free surface of the connective tissue, to be, in their

turn, separated after the same manner as were the first. Thus the process continues until the seventh month, when a single row of columnar epithelial cells, called by Waldeyer the germinal epithelium, is formed over the greater portion of the surface of the gland. The germinal epithelium rests on a layer of connective tissue, known as the tunica albuginea. This covering for the ovary is not completely formed until the third year and is continuous with the stroma and, therefore, can not, at any time, be peeled off from the substructure. The complicated manner in which the ovary is formed is, if the theory of Cohnheim is correct, one of the important factors in the causation of ovarian tumors; because, in proportion to the complexness in development is, of course, the liability to irregularities or imperfections in the process. In other words, the development of the ovary being so complicated some of the embryonic cells are liable to be misplaced during the process and never reach maturity. If the embryonic cells, in being displaced, become entangled in the fibres of the connective tissue forming the stroma, this may be the anatomic origin of an ovarian tumor. In no other way can the stroma of the ovary be the primary seat of a true cystoma; because connective tissue can not be transformed into epithelium. What is true of the stroma is also true of the medullary portion of the ovary. Just here I will call your attention to a condition that is not uncommon and is apparently due to incompleteness in development, I refer to the tubules of Pfluger. These tubules are epithelial-lined pouches extending into the substance of the ovary and opening on its free surface. To me, no more plausible theory has been offered in explanation of their presence than that the connective tissue stroma stopped short of full development, and thereby failed to completely surround all of the groups of cells. If this is true, is it not probable that some of the uninclosed cells shared in the incompleteness and remained embryonic, therefore, capable of being stimulated to active tissue proliferation? This theory supports the claim that ovarian cystoma may have their origin from the tubules of Pfluger.

Turning to the spaces—Graefian follicles—formed by the connective tissue stroma and containing cells, we find one of the cells much larger than the others. This is

the ovule. The smaller cells not only surround the ovum but they also line the inner surface of the follicle, and by multiplying and disintegrating distend the space until its wall and also the tunica albuginea ruptures. When this occurs the ovule makes its escape; hemorrhage fills the vacancy with blood and in a few days cells bud out from its wall into the blood clot; connective tissue is formed and by contracting leaves only a small scar. In the formation of the corpus luteum the cells having become embryonic for the purpose of producing the necessary tissue changes, may not some of them fail to reach maturity and remain as embryonic tissue capable of being stimulated to tumorous formation? Here then is a theory upon which may be based the claim of the advocates of the corpus luteum as the primary seat of ovarian cystoma.

In a very interesting and valuable contribution by Dr. Mary D. Jones the claim is made that inflammation "is the beginning and origin of ovarian cystoma." By inflammation I take it Dr. Jones means the result of tissue infection by micro-organisms, as this is the only true inflammation. I firmly believe inflammation is an important factor in the etiology of these tumors. It may, in accordance with the theory of Senn above mentioned, be responsible for the presence of a matrix of embryonic tissue in the ovary, but I am not prepared to accept the sweeping statement that it is the "origin of ovarian cystoma." I also recognize in it a probably frequent excitant of a pre-formed matrix of embryonic cells to active tissue proliferation, but I am constrained to believe that there are other conditions that act in the same manner. Any tissue that has a function as complicated and arduous as that of the ovary is liable to variation in the uniformity of its activity. I am of the opinion that a variation in the cell vitality of the ovary, manifested as a functional disturbance, is not infrequently responsible for existing embryonic cells being aroused to tumorous formation. This theory is supported by the clinical observation that a greater percentage of nulliparas than of multiparas have these tumors. It is claimed that pregnancy and lactation afford periods of ovarian inactivity. If inflammation is "the only condition that can produce a cyst of any nature" we should certainly find ovarian cystoma proportionately more frequent in the multipara

than in the nullipara, because much more exposed to conditions producing pelvic inflammation. I do not question that the walls of every ovarian cyst present, microscopically, many of the tissue changes common to inflammation, short of destruction. If Griffith is correct, these changes may be called regenerative or reproductive, though no loss of tissue has occurred. He claims that "the bulk of the solid parts of all ovarian tumors is composed of well developed connective tissue or of a spindle cell stroma identical with that of the normal ovary or of both of these constituents." It appears from the foregoing that no part of the ovary is exempt from being the primary seat of a cystoma.

So much for the origin and etiology of ovarian cystoma. I will now briefly review the pathology, as well as give some interesting clinical observations. For the purpose of facilitating description I will adopt the usual classification and consider that there are two kinds of cystoma, viz: Papillary and Glandular; though I am very much inclined to the view expressed by Thoma that "the great frequency with which these combined forms of proliferous cysts occur shows that they represent a single variety of tumor." Griffith also says, "when it is remembered that mixed papillary and proliferating (glandular) cysts are by no means rare it appears most probable that they arise from the same structures." Primarily, they both are composed of cells and connective tissue. In the papillomata the connective tissue is in excess and is "lined by a single layer of columnar cells," often ciliated," except at points where new papillæ are being formed when the layers are multiple" (Griffith). Rarely are papillary growths found on the surface of the ovary without microscopical evidence of a pre-existing cyst. The possibility of their developing, de novo, from the surface is denied by many. It is maintained that when they so appear the papillæ ruptured the cyst early and by continued growth destroyed the evidence of its existence. In opposition to this theory Uffenheimer claims that the investigations at the Berlin Pathological Institute prove that the surface epithelium of the ovary proliferates and penetrates into the substance of the gland, forming pouches from which the papillomata cyst develops. Papillæ are found on the

outer surface of 33 per cent of cystic papillomata. When the peritoneal cavity is invaded papillæ are detached from the parent growth and distributed over the peritoneum, forming new foci and causing the rapid development of ascites, as well as many adhesions. The growth of a papillary tumor, as a rule, is slow. It rarely attains a size larger than a cocoanut. About 50 per cent. are bilateral. Some claim that they have their origin from the medullary portion of the ovary and frequently develop downward between the folds of the broad ligament. It has never been proven that a papillomata can become a carcinoma, though the two diseases have, not infrequently, been found in the same patient.

Case 1. Through the courtesy of Dr. R. F. Michel of Montgomery, I saw, not a great while since, a patient with a papillary ovarian cyst, the course of which illustrates the necessity of early operation. She was a multipara, 43 years old. Previous history good. A tumor, the size of a quart cup, of the right ovary was diagnosed and she was advised to have it removed, but said she would consider the operation after returning from a visit of a couple of months she expected to make. While absent, her abdomen began to enlarge very rapidly and when she returned it was enormously distended with fluid. On opening the abdomen I found practically the entire peritoneal surface covered with papillæ. The lowest portion of the abdominal cavity was choked with papillary masses. No further effort was made to remove the tumor, as the free hemorrhage that would have been produced would have terminated her life on the operating table. Supposing it had been possible to remove it, I do not think any good would have been accomplished by doing so, as the peritoneum was so extensively involved. It is seemingly true that the removal of the parent growth checks the disease, if the peritoneum is not too extensively involved. In fact, some gynecologists claim that they have been encouraged to undertake a second operation, not only on account of the disease being checked, but rendered less severe as a result of a former effort, in which they were not able to remove the tumor. The case reported survived a number of months after leaving the Hill Infirmary. I am of the opinion the peritoneum was so slightly, if at all, involved at the time of the

first examination that if she had then accepted the operation she would have made a good recovery.

We will now turn our attention to the most frequent of ovarian tumors, viz: Glandular Cystomata. It is ten times more common than the papillary cyst. Kelley has found both ovaries involved in 6 per cent of his cases. It is usually multilocular or gives evidence of having been. As a rule, it grows very rapidly and in the absence of interference reaches an enormous size. Unlike the papillary, its cells are in excess of its connective tissue and are polymorphous, though the columnar predominate. The first stage of its development is a group of proliferating cells. As the mass increases the cells in its center undergo a degenerative process, forming fluid. Thus the primary cyst is begun. At first the wall consists of a comparatively loose connective tissue which is soon reinforced by a dense, firm, structure, formerly the covering for the ovary. The wall, therefore, of the primary cyst may be said to consist of two layers of connective tissue and to develop pari-passu with the cell changes in the cavity. The cells lining the inner surface of the cyst are stratified.

At some points the columnar cells proliferate more rapidly than at others, causing a cellular nodule which is supported by connective tissue derived from the inner layer of the wall. This tissue by encompassing a variable number of the proliferating cells completes the loculi for a secondary cyst. But, as the wall of the secondary cyst is not strong, it often ruptures, forming a communication with the parent cyst. A continuation of this process is the cause of the, not uncommon, honeycombed appearance of glandular cystomata. As the wall of the cyst contains its blood vessels, their rupture often causes hemorrhage which discolors the cystic fluid. It has been claimed that the cells of a glandular cystomata may loose their proliferating power and entirely disappear, in which case the growth of the tumor would cease. I think this is very doubtful, and, if true, is of such rare occurrence as to be of no practical importance. Ordinarily the fluid which these tumors contain is not infectious, therefore, general peritonitis does not usually follow its escape into the abdominal cavity. Garrigues claims that in 8 or 10 per cent of all operations for ovarian cysts evidences of rupture can be found. Glandular cysto-

mata usually grow upward and are attached to the uterus by pedicles, which vary much in size and length. Twisting of the pedicle, by rotation of the tumor, sometimes occurs; if it is sudden and sufficient to cut off the blood circulation the tumor will become gangrenous, but if the twisting is gradual adhesions may form, through which nourishment will be supplied, enabling the tumor to live and grow, though it becomes entirely separated from its original attachment. Dr. J. Knowsley Thornton found the latter true in four cases out of 600 ovariotomies. (A. J. M. S. Oct. 1888). These tumors often become carcinomatous, though they may, from a practical view point, always be regarded as malignant, because, uninterfered with, their course is towards destruction of life.

I must not longer tax your patience by yielding to my inclination to enter into a clinical review of this subject. However, I hope by presenting ten very large multilocular ovarian cysts, removed during the last year or so from as many patients, to draw out a full clinical discussion.

By considering the folds in these sacs you may get an idea of the size of each tumor. The smallest was between two and three gallons in size. Of these ten cases one was unfortunate in its termination—dying on the fourth day following the operation. Time will not admit of my giving the history of each case but the specimen marked, number six, came from a patient whose history ilustrates so forcibly the possibilities of the art of surgery that I am constrained to briefly review it.

She was referred to me by my friend, Dr. Wilkinson of Prattville, Alabama. White, multipara, about fifty years old, with a good family history. Emaciation was extreme, pulse was rapid and thready. The distension was so great that she could not lie down, and caused her respiration to be shallow and hurried. After nourishing and stimulating her for several weeks I had the anæsthetizer to undertake to etherize her for the operation. Under its influence she became very much cyanosed and her pulse and respiration were so bad that the ether had to be discontinued. It occurred to me that there was fluid outside of the tumor, the removal of which would give her more breathing space. Acting on

of a suppuration, after all, may be to rest a few days. I made an open ether under cocaine anæsthesia, three inches below the umbilicus, carried into the peritoneal cavity, through which about one quart of ascitic fluid escaped. Her breathing was slightly improved. I finally had her anæsthetized with chloroform and opened the abdomen. After drawing the fluid from the cysts and separating many adhesions I found the lower portion of the tumor to be a solid mass wedged and firmly adherent in the pelvic cavity. This mass was with great difficulty detached and delivered. In breaking loose the adhesions between the solid mass and the pelvic wall in front I opened a cavity containing several ounces of pus. The peritoneal cavity was well and frequently flushed with hot salt water during the separation and delivery of the tumor. The oozing, which was quite free, was controlled by pressure from a Mikulicz's drain. A large quantity of salt solution was left in the abdomen. The patient was returned to bed, the foot of which was elevated. She reacted quickly and well. Her recovery was uninterrupted. You will observe that the solid and cystic portions of this tumor are separate. In other words, the cystic portion is not a degeneration of a solid mass, but is a typical multilocular ovarian cyst. My opinion is that the cystic and solid portions of the tumor had separate loculi of development.

REPORT OF CASES.

By James Adrian Goggans.

Grand Senior Counsellor of the Medical Association of Alabama.

Within the past four months the cases to be reported, and from which the specimens that will be exhibited were removed, have been operated upon by Dr. W H. Hudson, of LaFayette, and myself, in conjunction.

Case 1. Female, aged 40 years, married, has had five children. Noticed that she had pelvic trouble about one year ago. She was first seen by us on March 9th, 1901. Her temperature at that time was 99 degrees, pulse 90.

Physical examination revealed a more or less fixed tumor in the region of each ovary. Any attempt to move or elevate the uterus caused considerable pain. During the week she developed high temperature and the evidences of pelvic pertonitis. On the 19th of March, the day of the operation, her temperature was 103 and pulse 120. A point of special interest in the case was the difficulty encountered in making a differential diagnosis, as to whether an inflammatory condition was present or possibly an abscess or a cancerous disease of the appendages, with an acute pelvic peritonitis resulting therefrom. We were inclined to believe that the latter condition existed. An immediate operation was advised and accepted, which required an abdominal incision, about 5 inches in length.

I here show you the specimens which were removed. You will observe that they are polycystic in development, mixed with more or less solid tissue. The uterine attachments of the broad ligaments were somewhat thickened, but not so invaded by the disease as to prevent the ligatures from being placed in firm tissue, thus completely controlling the hemorrhage.

The abdominal peritoneum lying immediately over the right ovarian tumor was intensely congested. There were many adhesions, but the tumors were totally removed. A small cancerous mass had developed in the omentum, which was ligated and excised.

A tumor which was encroaching upon the intestine was also developing in the mesentery. One of the largest of these cysts was ruptured while making the enucleation and its fluid contents were emptied into the pelvic cavity and over the walls of the abdominal incision. After the removal of the tumors the abdomen was irrigated with hot normal salt solution and the incision closed by through and through silk-worm-gut sutures. The patient made a good recovery and left the hospital within three weeks.

Case 2. Miss A., aged 42 years. About 7 years ago menstruation became more profuse than usual and on this account she consulted a physician who discovered in the pelvis a small, centrally located, tumor, and a laterally located tumor of about the same size.

At this time they were pronounced myomata. Her health remained good, although, recently, on account of

this supposition, after allowing her to rest a few days, I made an opening, under cocaine anaesthesia, three inches below the ensiform cartilage, into the peritoneal cavity, through which about one quart of ascitic fluid escaped. Her breathing was slightly improved. I finally had her anæsthetized with chloroform and opened the abdomen. After drawing the fluid from the cysts and separating many adhesions I found the lower portion of the tumor to be a solid mass wedged and firmly adherent in the pelvic cavity. This mass was with great difficulty detached and delivered. In breaking loose the adhesions between the solid mass and the pelvic wall in front I opened a cavity containing several ounces of pus. The peritoneal cavity was well and frequently flushed with hot salt water during the separation and delivery of the tumor. The oozing, which was quite free, was controlled by pressure from a Mikulicz's drain. A large quantity of salt solution was left in the abdomen. The patient was returned to bed, the foot of which was elevated. She reacted quickly and well. Her recovery was uninterrupted. You will observe that the solid and cystic portions of this tumor are separate. In other words, the cystic portion is not a degeneration of a solid mass, but is a typical multilocular ovarian cyst. My opinion is that the cystic and solid portions of the tumor had separate loculi of development.

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At this time they were pronounced myomata. Her health remained good, although, recently, on account of

the persistence of uterine hemorrhage and the increased growth of the tumors, she had become anæmic. She requested an operation, which was performed. I here show you the mass that was removed. The abdominal incision was about 8 inches in length. You will observe the centrally located fibroid occupying the fundus of the uterus and the left lateral fibroid extending well out into the broad ligament and to the pelvic brim. The operation was pan-hysterectomy, followed by suture of the peritoneum, closing the pelvic outlet. The patient made a complete recovery.

Case 3. Miss B., aged 42 years. Ten years ago, on account of irregular and profuse menstruation, she consulted a physician, who informed her that she had a centrally located tumor in the pelvis. About one year ago she suffered from severe pains in the pelvis. Suddenly, something came down into the vagina and the intensity of the pain diminished. We saw this patient in January, 1900. She was very weak and anæmic, hæmaglobin being only 30 per cent. The physical examination revealed the presence of this large centrally located tumor, which I show you, and with this mass hanging in the vagina,—a myoma with a polypoid projection into the vagina. Under rest, massage, iron, and forced nutrition for two weeks hæmaglobin increased to 40 per cent., but she was still in bad condition for an operation. The abdominal incision in this case was eight inches long, and the operation was pan-Hysterectomy. The vagina was cut, as you will perceive, from its uterine attachment after the uterine arteries had been ligated through the abdominal incision. You will observe, also, that had the operation of supravaginal hysterectomy been performed in this case a tumor almost as large as a fœtal head would have been left hanging in the vagina. By vaginal examination it was impossible to reach the cervix with the finger, and after the vagina had been separated from the tumor considerable force was exerted to lift the tumor, with this bulbous polypoid projection, from the pelvis. The abdominal incision was closed by sutures, each layer separately. The patient made a good recovery.

Case 4. Mrs. J. C., aged 33 years. Diagnosis of uterine myoma made, advised operation, to which patient

submitted. On opening the abdomen multiple fibroids were found, the largest one, which I here show, being attached to the fundus of the uterus by a small pedicle, about one inch in diameter. During the preliminary examination this pedicle was torn and some hemorrhage resulted therefrom.

Numerous other myomata were found, necessitating pan-hysterectomy. Nothing resembling tubes, ovaries, or broad ligaments was ever seen, all being bound down very closely to the pelvic floor. But for the necessity of a rubber ligature a bisection of the uterus would have simplified the operation. As it was, the operation was finished per vaginam. This patient made a tedious recovery.

Case 5. Mrs. L. J., aged 44 years, had one child 26 years ago. About 15 years ago she noticed a small tumor in the right side which grew slowly but gradually until it filled the abdominal cavity. A severe attack of inflammation of the veins of the leg brought about the decision to have the tumor removed. The specimen, you will observe, is of interest as a ligamentous cyst. It was decided to remove this tumor by making an approach from the free side and doing a hysterectomy. The specimen shows that it could have been removed otherwise, but it was perhaps easiest, after the uterus had been removed, to close the great cavity it occupied by sewing the peritoneal surfaces together.

This patient made a good recovery.

DISCUSSION.

Dr. E. A. Jones: I want to express my thanks for the most excellent paper by Dr. Hill. I think a paper of this nature necessarily suffers because it cannot be appreciated with such rapid reading. When printed we can enjoy it much more. I have been, within the last year, especially interested in the subject of "Ovarian Cysts." At Dr. Davis' Infirmary there is a specimen of a composite teratoma of the ovary. A diagnosis of a normally developed embryo, with a ruptured ectopic gestation into the sack of the pre-existing ovarian cyst, had been made by the Gynecologist. In the consideration of the etiology of ovarian neoplasm Cohnheim's theory is very useful and as the doctor has said serves

to explain many otherwise obscure phenomena. It is highly probable that in many of these conditions following inflammation, frequently, the embryonic cells undergo malignant transformation. Dermoid cysts are probably best explained by the theory that there is an infolding and subsequent pinching-off of the skin (either whole skin or simply epidermis), subsequently undergoing cystic development. Teratomata, especially the composite variety, probably are the result of a fœtal inclusion."

Dr. Copeland: There is only one question which I care to refer to and that is the control of the hemorrhage. Of course the abdominal operations are very successful. The easiest way to control a hemorrhage is with an angiotribe, with pressure of 2800 to 3200 pounds. This is left on the patient two minutes and the parts divided. When this is removed the other side is treated in the same manner. If the angiotribe is left on a few minutes you have no more hemorrhage.

Dr. Harper, of Selma: I want to ask one question. There are three methods of controlling hemorrhage, with the angiotribe, silk, and catgut. I should like the question discussed as to which is the preferable method.

Dr. Copeland: I prefer the angiotribe. The instrument is devised for the purpose of excluding the ligature entirely. After the instrument is adjusted and left in position for three minutes there is no danger of hemorrhage. Then cut close to the instument.

Dr. F. G. Dubose: The angiotribe is used extensively by the Berlin surgeons. It was my pleasure to see it used there. It is not suited for hemostasis in extensive operations, those for large fibroids, and where many adhesions and much vascularity complicates the operation. In London the surgeons prefer silk as a ligature. Cat gut is all right, can be perfectly sterilized, and, can be procured in a perfectly aseptic form from many reliable dealers in this country. It is not so absorbable, however, as is frequently claimed. I have removed the plain cat-gut from a wound three weeks, and chromicized cat-gut six weeks, after introduction.

Dr. L. C. Morris: I have never had any personal experience with the angieotribe, but I had the pleasure of seeing Dr. Cleveland of the Womans Hospital of New York use it to stop a hemorrhage. He put it on with a pressure of 3000 pounds and kept it on two minutes, and afterwards remarked that he felt absolutely safe against hemorrhage. Cat gut can be absolutely sterilized. Dr. Hunter of Johns Hopkins perfected cat gut which will stay from 20 to 30 days. There is no danger of infection if cumolized cat gut is used.

Dr. R. S. Hill (closing): I wish to thank Dr. Jones for his kind remarks, which I appreciate the more because I know that he is devoting his time largely to the study of pathology, and feel that it is a compliment to any of us to have him favorably criticise our work.

In regard to Dr. Copeland's suggestion, I do not think that instrument can be expeditiously applied in the removal of large tumors, such as I have shown you. Indeed, it is impossible to remove tumors fixed in their position by many adhesions without using ligatures to control the hemorrhage. Now, as for the best material for ligatures, I do not think we are prepared to entirely give up silk, though I use cat-gut a great deal more than I did a few years ago. For a long time I experienced great difficulty in preparing my cat-gut, but since I have been using the formaldehyde method this has not been the case, and my results have been more satisfactory. I do not have the suppuration I formerly had. I take the plain cat-gut and roll it, one layer thick, on glass tubes or reels and tie it, to prevent it from getting loose or unrolling. The tubes are put into a solution of formaldehyde, one part to twelve of water, and allowed to remain for twenty-four hours, after which they can be boiled with the instruments for fifteen minutes without impairing the strength of the gut.

REFLEX NEUROSES IN WOMEN.

By Edward Burton Ward.

Junior Counsellor of the Medical Association of Alabama.

No other class of patients tax the forbearance and skill of a doctor more than those cases of transferred nervous troubles daily presented to us either at the bedside or in our offices. I might also add that there are no cases with which one can establish a reputation more easily. Coming to us as they do, day after day, rehearsing the some monotonous tales of vagrant and indefinite pains, we are apt to become indifferent and to overlook the real cause of the trouble. This is a mistake! We should make it the rule to go into a careful examination of every case, note each symptom, search out the cause and discover what distant organ is diseased and may be transmitting these perplexing phenomena. There is a cause for every deviation from the normal, and every pain or paroxysm is but the signal telegraphed from the offending organ. Truly has it been said that "many of these simple deviations from the normal are really precursors of conditions of a most serious nature. There is every reason to investigate carefully these minor ailments, because of their frequency and the important bearing they have upon our success as practitioners." A glance at the wonderful mechanism of the nervous system is sufficient to explain why we are made to suffer pain. Connected by a more perfect system of rapid transit than the mind of man ever conceived, with the battery cells of the cerebro-spinal system to furnish the motive power and the multitudinous nerve fibres spreading over the entire body, transmitting the current, we are prepared to give notice when any point along this circuit is not working smoothly and in order.

"Man's greatness is shown after a lamentable fashion, by the endless variety of aches and pains by which he is teased or tormented, and by the lifelong power of enduring their fiercest assaults. Besides pain, man is

vexed by an army of strange sensations, overwhelming emotions, and vexatious thoughts. Nevertheless, pain often serves a useful purpose, for, as a rule, it insures the cure of a host of diseases, which would otherwise only become known when incurable."

It is not my purpose to go into a study of the minute or gross anatomy of the nervous system in the presentation of this paper; time would not permit such details, nor would I tax your patience with them. The study of the nervous system is too profound, and the history of the numerous reflex centres now known is too long for a reproduction here. Still, we can not fully understand these perplexing reflex troubles until the anatomical relations and physiological functions of the various nerve tracts have been "traced from the terminal plates to the central ganglia." These groups of symptoms—most of the reflex neuroses being symptoms, yet often producing more distress than the organic disease from which they take their origin, "emanating from an obscure, localized irritation, affecting important organs most diverse in their functions, connecting distant parts by a chain of ganglionic and cerebro-spinal nerves, involving the system in all its parts, form subjects of interest and study, not alone for the specialist and gynecologist, but for the general practitioner, also. The brain acts as a central reflex organ, but the spinal cord is the central reflex organ *par excellence,* not so much from the great number of reflex centres located in it, as from the fact that this is probably its most important function; while the brain, including the medulla, is much devoted to other important functions. The gray substance of the cord is the principal central reflex organ within which the exchange from afferent to efferent impulses is effected. Then the sympathetic or ganglionic system comes in for its share of attention, with its special ganglia, the solar plexus, most intimately concerned in the gastric neuroses." A neurosis may then be defined as a generic term for conditions of hyperæsthesia or disturbance of the nervous system which set up disease in an organ that is healthy, or without evident lesion of any of its parts. These disorders are marked by total intermissions, which are never found in true organic disease, although the latter may have great remissions. Functional diseases are al-

ways peripheral, never central, although the centres may be affected secondarily. Dalton says, the irritability of the sensitive nerve fibres is most directly manifested during life by the production of sensation. This sensation, however, does not exist in the nerve itself, but in the nervous centre where its fibres terminate. The nervous system stands as a medium of communication between different parts of the living body, so that a stimulus applied to one organ may excite the activity of another. This communication between adjacent or distant parts is never direct, but always a circuitous one. It passes invariably through an intermediate nervous centre, which receives the impression conveyed to it by nerve fibres from one organ and reacts by sending out a stimulus which calls into activity the other. This is called the "reflex action" of the nervous system, because the stimulus is first sent inward to the nervous centre and then returned or reflected in the opposite direction. In this process, the intermediate act between the inward and the outward passage of the nervous stimulus is accomplished in the gray substance of the nervous centres. Each organ or anatomical element, when subjected to the application of a stimulus adapted to its physiological character, reacts in a way peculiar to itself and produces a visible result of a definite kind. The sympathetic nervous system undoubtedly serves as a medium of reflex action between the sensitive and motor portions of the digestive, excretory, and generative apparatus; and it is certain that it takes a part in which the cerebro-spinal system is also interested. There are accordingly three different kinds of reflex action which may occur wholly or partially through the sympathetic system.

1. Reflex actions taking place from the internal organs, through the sympathetic and the cerebro-spinal system, to the voluntary muscles and sensitive surfaces.
2. Reflex actions taking place from the sensitive surfaces, through the cerebro-spinal and sympathetic systems, to the involuntary muscles and secreting organs.
3. Reflex actions taking place through the sympathetic, from one part of the internal organs to another.

McGillicuddy says that "the stomach and intestines are probably the most frequent cause of transferred pains;" after these he places the uterus and its appendages, and next the eye or heart. Irritation from the

stomach causes reflexly a large variety of pains. "It is not possible to decide always whether these pains are reflex, or are due to vaso-motor disturbances, or the circulation of morbid products in the blood, as in cases of fermentative dyspepsia." Another authority divides the reflex-neuroses into: 1. Those of the pelvis; 2. Those of the alimentary canal; 3. Those of the head; 4. General nervousness, including hysteria.

When the Great Anatomist carved with His scalpel an image out of atomic nature and called it, Man, the grandest result was thought to have been attained. When from Man, throbbing with life, a portion of his anatomy was extracted to make for him a companion, then the acme of perfection was truly attained. Well could He rest from His labors, for the master piece had been produced. Defying imitation, this result of Divine skill stands preëminent, without a parallel in the world. The hand of a Phidias fashioned out of marble a vain effort to imitate; the brush of a Raphael or a Michael Angelo took up the task, but to fail. "This mysterious problem can never be thoroughly understood. Scince, with profane hand, seemed almost to raise a corner of the veil which hides the secret of the creative energy, when the microscope revealed to the curious gaze the primordial embryonic atom, almost at its first conception. The first impulse of a new existence, about to repeat that ever wonderful miracle, the incarnation of spirit, seemed almost presented to the eye. But here human intelligence pauses. The voice of God says again, as of old it said to the encroaching waves: "Hitherto shalt thou come, but no further." Whatever may be the essence of life, be it agent or endowment, it is only known by its phenomena. The lily has yielded its softest tints to this marvellous creature. There was placed in the citadel of thought the great batteries of the brain which flash from her face the expressions of every emotion and reflect the image of her maker. Thought and reason predominate. Along the insulated conductor is laid the great cable, the spinal cord, from which pass out the many electric wires, establishing a perfect system of communication, along which are transmitted the currents of life. How strange that such a perfect being should be permitted to suffer

pain, and how hard to realize, as we see her with haughty mien and graceful step, the poetry of motion and the evolvement of beauty, permitted to toss in the throes of hystero-epilepsy, or become inanimate in the grasp of a cataleptic spell.

Why then, this decree of an allwise Maker?

> "Of mans' first disobedience and the fruit
> Of that forbidden tree, whose mortal taste
> Brought death into the world and all our woe."

The Divine injunction: "Be fruitful and multiply," is often followed with a penalty, and the perpetuity of our race results in pain and diseases. Yet, still—

> "Our Maker bids increase; who bids abstain
> But our destroyer, foe to God and man?"

The delicate structure of the sexual organs in women, and the Herculean task imposed upon them renders women prone to reflex nervous troubles. The uterus and its appendages from the continued performance of their functions, sooner or later take on inflammatory symptoms which are reflected to other and more remote parts of the body. We have, says a writer, come to feel that a woman's organs of generation are seldom in a state of perfect health; rather more, that they are centers from which emanate the most terrible and awful nervous explosions. Every vibration of the nerve-fluid in the genital terminals meets with a sympathetic reverberation, and is often re-ëchoed a hundred fold in the spinal and cerebral centers, which reflect even the physiological action of the reproductive organs.

In the highly sensitive nervous organization, then, of woman, we find these reflex symptoms most frequent and intense, and they are most fully developed in response to lesions of the sexual organs, the controlling influence in the functional life of woman. Says Engleman: "The uterine organs respond readily to a cerebral impulse by the intertwining of the ganglionic and cerebro-spinal system." The most important reflex neuroses come under the classification of the Hystero-Neuroses.

Engleman's definition of the hystero-neuroses is: "Phenomena which simulate a morbid condition in an

organ which is in an anatomically healthy state and which are not due to structural changes in the organ in which they appear, but to morbid or physiological changes in the uterus and ovaries." Engleman has written a very valuable article on this subject. He states that in the vast majority of these cases the trouble is dependent upon uterine changes alone, and not upon those of the ovary. "Treatment directed to the uterus proved more successful." This statement is verified by the frequent failure to cure these attendant nervous symptoms after the simple removal of the ovaries and tubes. We should never, therefore, guarantee to our patients a perfect cure of their nervousness after such operations. "Whatever result is obtained in amelioration of these symptoms is dependent indirectly upon the uterine involution following, and not directly by the removal of the ovary as the offending organ." Most of the neuroses come on near, or accompany, the menstrual period. "The two most important epochs in the sexual life of woman, the coming and going of the menstrual period, are marked by increased susceptibility of the nervous system." It is at this time that the delicate nerve fibrils are under such great tension that their vibrations are diffused over the entire system, until the strain is too great, a snap, a broken link, and relaxation comes on. Such shocks are too much for our American women. Nervous invalids are numerous about us, persons who are frightened at every sound, jump and start at the slamming of a door, and whom the sight of a mouse throws into a cold perspiration. The reason is easily dethroned and subordinated by the superior influence of easily excited emotions. The age of puberty is a critical time in the life of our daughters. Too much care can not be bestowed on their training at this time. Their brains should not be overtaxed, for premature and excessive mental activity dwarfs the bodily growth and enfeebles the functions in general. Ambitious at school, they are permitted to crowd on all the studies possible, late hours are required to master these lessons, not enough sleep is allowed to restore the loss. Soon from the bright rosebuds, promising and robust and healthy, they become pale and anaemic, the rosy tints fade from their cheeks, irregular and painful menstruation comes on, insomnia fastens its hideous grasp upon them. They droop and

fade, and at last grow into nervous women, with an inheritance of all the reflex neuroses of their ancestors settled upon them. This is a sad but true picture of our girls at this age. We, as guardians of their health, should call a halt ere it is too late. Again at the menopause, we meet with many of these cases of exaggerated nervous troubles. It is at this stage of woman's life, after climbing the rugged hill thus far on life's journey, a change may come, the path may lead on up to good health, or a turn in the road may carry her rapidly down to the grave.

I have time here only to briefly mention the other varieties of reflex neuroses. The cerebral, exhibiting itself in the different kinds of headaches so often met with at the time of menstruation. The gastric, exhibited in vomiting of pregnancy, functional paralysis, vascular, pharyngeal and laryngeal, bronchial, intestinal, renal, vesical, glandular, ophthalmic, aural, lingual, the articular neuroses, the reflex dermatoses, hysteria, hystero-epilepsy, spinal, and the cardiac. Often women consult us for imaginary heart disease, and it is sometimes a very difficult matter to convince them of their true condition. The vagus, an important tract, is in direct connection with the ganglionic centers, and carries the uterine impulse to the heart, resulting in functional irregularities; while pain and distress about the heart are often reflected from the digestive tract. Women are easily alarmed and become firmly impressed with the fear of sudden death. The troublesome cases of cystitis are met with in uterine displacements, lacerations of cervix, inflammations, and in pregnancy.

Lacerations of the cervix and perineum are fruitful causes of these transferred impressions. Right here, I would like to emphasize the fact that at *every* childbirth, in primipara, lacerations of the soft parts occur, their extent varying in degree according to the resisting forces met with. I say this notwithstanding the fact that there are some doctors who say that they never have such accidents in their practice. They are wont to boast of their superior skill to their less fortunate brother. You may laud the merits of this or that kind of forceps, axis-traction, or what not, but these accidents will occur in spite of the best care. He who tells me the

contrary has had very little experience in obstetrical work or does not adhere very closely to the oath of Hippocrates to be truthful in all things. In cervical lacerations, the scar tissue left by nature in an attempt to repair the trouble is responsible for the nervous systems that ensue. Incarcerated in its fibrous grasp are nerve filaments, which furnish no end of reflex nervous symptoms. In an operation on the cervix thorough removal of every particle of this dense mass is essential to complete success. Those cases of retro-displacements of the uterus attended by prolapsus, with a relaxed vaginal floor furnishing no support to prevent dragging on its ligaments, are only relieved by operation. The skillful gynecologist can report many such results. As you have just listened to a paper on this subject it is unnecessary for me to dwell at length on these cases, although their importance is duly acknowledged. I wish now to call your attention briefly to those *bete noirs* in our practice: Hysteria, Catalepsy, and Hystero-Epilepsy. How often are we confronted with these trying cases, and how difficult it is to control our patience under such circumstances. This trinity is peculiar to women, although I have met with it in men whose nervous systems are built on the feminine type. The definition of these troubles, "Emotion gone mad," is very expressive; another, a "furor of the womb," is suggestive. "There is no emotion without visceral reaction and the inordinate reaction of the sexual organs on a predisposed nervous system, shows itself by hysteria." In utero-ovarian diseases the hysterical paroxysms are brought on by pressure over the diseased organs, as easily, says one, as sound is produced by striking the keys of a piano. We often pay too little attention to these cases, and sometimes diagnose as hysterical those which may be more serious. Many a poor woman's aches and pains are carelessly dismissed, with the expressions from us, 'only reflex, functional, your disease is a phantom;' in other words, hysterical, though we dare not tell her in plain English, for if you wish to insult the dignity of woman accuse her of having hysterics. "The word Hysteria does often become to the doctor a will-'o-the-wisp, misdirecting his attention from the real source of the nervous symptoms, which might have been once cured with comparative ease, but

have become deeply rooted in a debilitated constitution." I hope you will pardon me for relating a bit of personal experience along this line occurring in my younger days. I shall never forget the incident. It is indelibly impressed upon my memory. I was sent for to attend a lady who was subject to the worst kind of hystero-epileptic and cataleptic spells. Unfortunately for me, I was not familiar with her idiosyncrasies, and wishing, naturally, to give her prompt relief, I proceeded to administer a hypodermic of morphine. Unfortunately, I let her know what I was going to give. She informed me that she could not take an opiate in any form; that her old doctor, who had crossed over the river, was "beyond the call of a hysterical patient, never would give it to her." Notwithstanding her protest I gave it, thinking it but a delusion of an overbalanced brain. In a very few minutes I was sorry for what I did, immensely so; for no sooner had the needle been withdrawn than off she went into the most fearful contortions, yelling and screaming, with an expression of horror depicted on her face, as she tried to escape the myriads of little devils that hovered around her, grinning in satanic glee. Soon she sank exhausted into a cataleptoid state. You can well imagine the state of my mind about that time. The cold perspiration began to creep slowly down my spinal column, my solar plexus wired its message of sympathy to my trembling epigastrium, my knees grew weak under me, my tongue seemed to cleave to the roof of my mouth, fear like a pall enveloped me. There she lay as inanimate and as cold as a marble statue. I thought I had killed my patient! I dare say many of you could repeat similar experiences. I would add that I have many times since given that same patient opiates, unknown to her, with no bad results. I would, however, say that I do not approve of the indiscriminate use of opiates in these cases, for sooner or later confirmed habits are established and the doctor is held responsible.

Before I close this paper I would like to again speak of the importance of not treating too lightly and indifferently the demands of these unfortunately afflicted individuals. Although they try our patience, seemingly beyond endurance, let us remember the proverb: "*Suaviter in modo, fortiter in re.*" That they do suffer both men-

tal and physical pain is true beyond a doubt. Phantom pains are sometimes more intense than real. Even if we find that there are no real pathological conditions existing, it is our duty to minister to the mind as well as to the body. "The science of hygiene, if not the science of medicine, must, undoubtedly, in the future, give greater heed to these multifarious stimuli, for the sake of their effects." "In the liberality of an enlightened age, there may be but little surprise at newly discovered relations between man and the organic life around him; yet in the cumulative knowledge of continued experiments the proximate cause of disease may be found at last within the grasp of scientific research, and modes of prevention become as important to man as are now the means of cure." "Any doctor," says a noted authority, "can cure acute disease, nature does it for him, if he will let her alone; but the highest test of skill is to cure chronic diseases of the reproductive organs." As peripheral irritation is a very decided factor in the production of reflex neuroses, treatment of course should be directed to removal of this irritation. The rational cure of these distressing nervous phenomena is the real sedative women want and not the empirical use of drugs. The true physician seeks to understand and to regulate the laws and phenomena of vitality; he is the pilot who guides the frail barque of human life through innumerable obstacles and perils, to the peaceful haven of health and safety. He is the high priest who enters into the most sacred precincts of domestic life. It is his duty to watch over the first day-spring of existence, and the last gleam of its setting sun. Not only is it his duty to keep vigil at the couch of pain, but to cheer the soul under its acute suffering, and alleviate the decay of nature; and it is a very difficult task sometimes to buoy up the hopes of patients reduced to despondency by repeated relapses.

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A STUDY OF REFLEX SENSORY AND MOTOR PHENOMENA, WITH REFERENCE TO THE COMPLETE DISTRIBUTION OF A NEURAL SEGMENT.

By William T. Eckley, M. D., Chicago.

"A spinal nerve, including both the motor part and sensory part with its spinal ganglion, together with a portion of the medullary tube to which it belongs, represents one neural segment." (Barker.)

The object of this paper is, first, to recall to your minds some of the anatomical and physiological principles involved in reflex pain-phenomena which constantly present themselves to the practitioner; second, to urge a greater uniformity of procedure in diagnosis, in interpretation of pain, in regions remote from the immediate cause of the pain; third, to venture certain deductions, which, I believe, the present status of science will justify.

Prior to the time of Hilton, who so enriched medical literature and elevated rational treatment, by his lectures on "The Therapeutic Influence of Rest and the Diagnostic Value of Pain," the phenomena of pain in a given part, due to irritation in some remote regions, as reflex toothache, due to a lesion in the uterus—were regarded as an inexplicable sympathy that one organ had for another, when this latter was in trouble.

Why the eyeballs and muscles of mastication should indulge in periodic nocturnal gymnastics and manifest such profound sympathy for the lower bowel, in case of irritation there, produced by parasites, not even the most speculative coffee-house charlatan would venture to explain. Very naturally, then, in harmony with the prevalent ideas as to the causation of such phenomenal pains, in regions where no possible inflammatory action could be invoked to account for their occurrence, such deviations of common sensations were called "sympathetic pains"—an expression as current now, as then, in

medical literature, but more scientifically explained.

Hilton and his confreres explained the so-called sympathetic pains in the light of a projectile following its line of least resistance, along a tangible and demonstrable continuity of nerve-fibre, and in the following sentences announced the working formula for interpreting reflex pains. (We are mindful of the facts of arborization). "Sympathetic pains result from a continuity of nerves between the disease and the pain. As soon as we recognize the precise position of the pain, we are enabled by a knowledge of the distribution of the nerve or nerves of that part to arrive, at once, at the only rational suggestion as to what nerve is the exponent of the symptom. Pain in any part, when not associated with increase of temperature, depends on a cause situated remotely from the locality of the pain. If a patient complains of pain on the surface of the body, it must be expressed by the nerve which resides there; there is no other structure that can express it, and somewhere in the course of its distribution, between its peripheral termination and its central, spinal, or cerebral origin, the precise cause of the pain, expressed on the surface, must be situated. Superficial pain on both sides of the body, which are symmetrical, implies an origin or cause, the seat of which is central or bilateral; unilateral pain implies a seat of origin which is one sided, and, as a rule, exists on the same side of the body as the pain."

The principles advanced by Hilton regarding the distribution of cutaneous and articular nerves, find their exact parallel today in the analysis of a neural segment, along the embryological line of man as a segmented creature. The telescoping of segments necessitates frequent communications of nerves and on this latter depends the irritation of pain which so often makes localization of a lesion very difficult.

In these days of rapid operations, under powerful anæsthetics, and great precision in diagnosis, made so by the aid of chemistry, pathology, and transcutaneous photography, I am willing to admit that pain, as a subjective diagnostic symptom, may seem the same as "trifles, light as air."

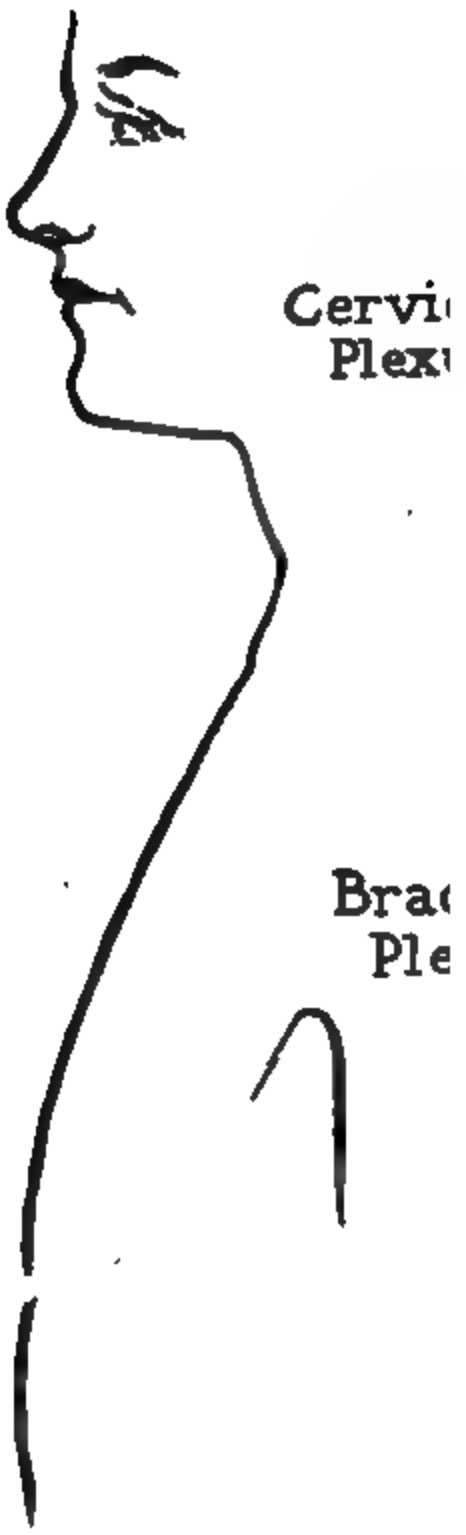
To the patient, however, pain is the ideal of actual pathology, and to escape its recurrence how many take up their residence under the very shadow of the shrine of

Morpheus. Biologically, pain is an alert sentinel which first informs sensorium that the adjustment of the inner and outer relations is bad—that is a dull, complaining, local pain; second, pain makes an appealing prayer for a speedy readjustment of inner to outer relations. This is a sharp, stabbing, lancinating, reflex, pain, over the nearest sensory nerve to the location of the disease; lastly, distances lose their power of resistance, all sensory lines tingle, all motor tracts are convulsed; this is the general irradiation of both pain and motion.

In valvular lesion of the heart, there is reflex pain in the hand; in disease of the kidney, there is reflex pain in the distal urethra; in diseases of certain pelvic organs, there is reflex pain in the distribution of the fifth cranial nerves. It seems a strange perversion, indeed, that the heart should belie hand; that kidney should belie urethra; that ovary should belie a tooth, but this is the plagiarism of nerves, accounted for anatomically and physiologically, first, because sympathetic nerves do terminal work to the brain, over cerebro-spinal nerves; second, because sensory nerves, regardless of where they are irritated, always refer their sensations peripherally.

There is no desire on my part to give pain an untenable position in the diagnosis of disease, but to suggest a sympathetic line of rational procedure in locating the diseased organ, when cutaneous pain-data are present. So long as patients have painful diseases, so long as soothing applications to the exterior of the body react on internal organs corresponding to the same segmentation; so long as nerves in a stump ring up the brain and report pain in the great toe of a limb that twenty years ago was amputated at the hip; so long as physiology and the experience of physicians everywhere teach that stimulation of fifth cranial nerves and nipple may induce uterine contraction; so long as Pflüger's law of reflex actions remains on record, I shall not consider the diagnostic value of pain obsolete.

In the accompanying chart, for which I am indebted to Dr. Mortimer Frank, I have attempted to show the relation of the gangliated sympathetic cord and its proverbial plexuses to the spinal nerves, in such a manner as to exemplify the fundamental principle in Hiltonism, that sympathetic pains result from a continuity of nerves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between the disease and the pain. On one side, the cones indicate the distribution of the spinal nerves to the body; on the other, the corresponding sympathetic nerves to the cranium and prevertebral plexuses.

In valvular lesion of the heart, an organ deriving its sympathetic nerve influence from the cardiac plexus, pain is experienced in the left little finger; the continuity of nerve from the disease in the heart to the peripheral pain is along the cardiac plexus, cardiac sympathetic nerves, and brachial plexus, to the hand. The nerves that supply the cardiac plexus are visceral branches of the very nerves that form the brachial plexus and the base of the sympathetic cone corresponds to that of the somatic cone. In any painful disease of the heart, then, pain, if reflected, finds its logical route along its somatic correspondent, the brachial plexus. Let us remember that in valvular disease, reflex phenomena may occur, then, in the fullest distribution of the brachial plexus; in any muscle supplied by this plexus; in any cutaneous region covering the muscle; in any articulation moved by the muscle, or in any bone, cartilage, or fascia connected with muscles supplied by the brachial plexus.

In like manner the pulmonary plexus corresponds to the 4 upper thoracic nerves, and in diseases of the lungs pain is reflected over these nerves and may manifest itself in skin, bone, fascia, or articulation; reflex muscular rigidity corresponding to the distribution of the 4 upper thoracic nerves may also be present.

The solar plexus corresponds to the 8 lower thoracic nerves, hence in diseases of the abdominal digestive organs, pain is reflected over this somatic route to the walls of the trunk corresponding to the cutaneous, articular, muscular, and serous distribution of the 8 lower thoracic nerves. The renal sympathetic plexus corresponds to the lumbar plexus; and all are familiar with reflex pain in the distal end of the urethra in renal calculus.

The hypogastric plexus, from which the pelvic organs are supplied, corresponds to the sacral plexus; and many and interesting are the somatic reflexes in the distribution of this plexus.

The gangliated sympathetic cord communicates above with certain cranial nerves. Pains in the distribution

eases, which I have taken the time to look up, and I presume they are used also in many other diseases, to the clinical histories of which I have not yet had time to refer: Pneumonia, pleurisy, bronchitis, pericarditis, endocarditis, valvular lesion of the heart, angina pectoris, thoracic aneurism, renal colic, aneurism of abdominal aorta, spinal meningitis, locomotor ataxia, renal inflammation, cancer of stomach, gastric ulcer, intestinal colic, enteralgia, acute enteritis, duodenal ulcer, intussusception, strangulated hernia, parenchymatous hepatitis, suppurative hepatitis, biliary calculi, ovaritis, and appendicitis.

We interpret the route pursued by pain according to Hilton's laws, but we interpret the phenomena of reflex actions in general, according to *Pfluger's Law of Reflex Actions.*

1. If the reflex movement occurs on the same side on which the sensory nerve was stimulated, only those muscles contract whose nerves arise from the same segment of the spinal cord. Lastly, all the muscles of the body may be thrown into contraction.

2. If the reflex occur on the other side, only the corresponding muscles contract.

3. If the contractions be unequal on the two sides, then the most vigorous contractions always occur on the side which is stimulated.

4. If the reflex excitement extends to other motor nerves, those nerves are always affected which lie in the direction of the medulla; any reflex may be crossed.

5. Extensive reflex movements and irradiating pain may occur under the following circumstances:

1. When the discharging stimulus is very strong;

2. In case of exalted excitibility of the gray matter of the cord or brain, as in acute peritonitis, angina pectoris, spinal meningitis, Pott's disease of the spine, myelitis, and spinal irritation.

A proper understanding of reflex phenomena on a uniform basis would tend to smoothe many diagnostic asperities. The logic in some cases of interpreting reflexes leads to the conclusion that equals are not equal, as the following case will show: A mother surrendered a diseased ovary, whereupon painful reflex phenomena in the distribution of the fifth nerve ceased permanently. An 8-year-old son of the patient was seized with grinding of

the teeth and convulsive movements of the muscles of the eye ball, and later with severe pain in the ears. The grateful mother called on her physician, who wavered in diagnosis between "growing pains of childhood" and "hereditary nervousness." The physician, in the absence of a uniform logical procedure for interpreting reflex pain-phenomena, argued, doubtless, as follows: "*Vir* has no ovaries, therefore, the motor and sensory disturbances of the fifth nerve are due to maternal nervousness." A few years ago, I chanced to meet a member of the afflicted family, and learned that *Vir* had surrendered his tonsils in Des Moines, Ia., his uvula in Sioux City, and, six months later, had been fitted with glasses by an oculist in Omaha, but had not regained perfect health until treated for pin worms by a specialist in Chicago.

Medicine will reach ideal perfection only when every region of the body of the patient will be as painstakingly examined as our specialists are today capable of doing. The eye may be organically sound, but paralysis of the cervical sympathetic ganglia, or an injury to the spinal cord in the upper lumbar region, may reflexly induce ptosis, recession of the globe, and narrowing of the interpalpebral fissure and pupil. Logically, pharyngitis is complicated by lancinating pain in the eyeball, earache, and stiff jaw; while toothache may be reflexly caused by functional or organic disease of almost any organ in the thorax, pelvis, or abdomen, because the adjustment of inner to outer relations of the nervous system is such that sympathetic nerves do terminal work over somatic nerves, and sensory nerves refer sensations to skin and articulations peripherally, the trigeminus being one of the most sensitive nerves in the body. Pain is a common sensation and differs only in degree from hunger, thirst, malaise, fatigue, horror, vertigo, tickling, well-being, illness, and the feeling of free unobstructed breathing. In health there is a feeling of contentment incident to the physiological action of organs, and the brain receives the report "all is well" from abdominal and thoracic organs along sympathetic nerves doing terminal work over somatics. In disease, however, an opposite report reaches the sensorium, announced by darting, stabbing, pains. Where is the line to be drawn separating the re-

port, "all is well," from its painful opposite? In the former, the brain enjoys the feeling of well-being, whose characters are not easily described; in the latter, the patient is racked with pain in the distribution of those very sensory nerves over which the visceral sympathetics do terminal work. Let physiology shed its light on this fine differential point, in a quotation from Landois and Sterling:

"Pain may occur wherever sensory nerves are distributed, and it is invariably caused by a stronger stimulus than normal being applied to sensory nerves. Every kind of stimulation, mechanical, chemical, as well as somatic, (somatic inflammation or disturbances of nutrition) may excite pain."

The facts in the case are about as follows: Organs in the great cavities of the body are supplied principally by the sympathetic nerves, which are the visceral branches of spinal nerves; they have a separate course from the intervertebral foramina to the organs, but in the spinal cord they do terminal work to the sensorium, over the axons of the spinal nerves. These sympathetic nerves report to the brain the feeling of well-being incident to all the physiological functions of the body. In some cases malaise, vertigo, horror, and illness, are reported; from a conservative standpoint hunger, thirst fatigue, are reported. These various feelings are common sensations, and differ, in degree only, from pain, which is also one of their number.

In various organs the sympathetic reports to the brain, from different localities, in its characteristic adjectives: a sensation of weight, oppression, uneasiness, heat, burning, dullness, pricking, distress, tenderness. The physiological difference between malaise and actual pain, then, depends on the intensity of the stimulation; intensity of pain depends on nine conditions, one of which is the individual's nationality. Let us conclude that each patient is a law unto himself, in regard to pain, and that a stimulus of given intensity that by one patient is called pain may be entirely ignored by another. In some cases of appendicitis there is "no pain," but there are no cases of appendicitis in which there is "no sensation." I will venture the assertion that any surgeon who has an operable case of painless appendicitis, if he will closely in-

terrogate his patient along the line of "what kind of a sensation have you in the right iliac fossa?" instead of "have you pain?" will be able to give the world a new word, by which to properly designate painless appendicitis. Pain, as previously observed, is only one of a number of common sensations.

If we interpret the course of pain as a projectile, according to Hilton, and estimate its multiform phenomena according to Pflüger; if the intensity of pain depends on nine physiological propositions, varying in importance from nationality to particular nerves; if there are two distinct varieties of pain, described by all authors, and if these two varieties of pain can be shown to possess diametrically opposite characters, and to emanate one variety from a sympathetic, the other from a somatic nerve; if pain is only one of a dozen common sensations, and in some cases may be supplanted by another sensation; if pain is manifestly peripheral and its laws of manifestation are understood and appreciated as a simple projectile in physics, and if pain figures conspicuously in the majority of diseases as a subjective symptom, I would ask: Is it not worth our time to revive principles enunciated by Hilton, marshal the same in line, harmonize them with physics, physiology, and embryology, and decide on a uniform line of procedure in giving a universal interpretation of painful phenomena in those articular and cutaneous regions where there is no inflammation?

It would seem that the same interpretation should be accorded to reflex pain-phenomena by all physicians; I believe, however, such uniformity is not the case. I think it an exception, rather than a rule, to find a large percentage of physicians agreeing on the locality of a given irritation that produces a given reflex pain. Dr. K. reported to a local journal a case of intense pain in a sound molar tooth due to an ovarian tumor. Dr. L. replied to the report, averring that his collegiate training, as well as his professional experience in practice, had made him incredulous on the subject of post partum toothache in the pelvis.

Dr. A. reports a case of valvular lesion, with darting, stabbing, pain in the little finger. No one sees anything out of the way in the report, because the traditions of the

profession and the empirics of generations recognize the little finger as a necessary partner in valvular lesion. Well, in a short time, Dr. A. chances to read a report of a case written up by Dr. B. on the same subject. In this, however, the little finger was not in the case. On the contrary, the patient had intense pain in the shoulder, elbow, wrist, and finger joints, in conjunction with motor disturbances of the hand and forearm. Dr. A. could not believe Dr. B's report, because the traditional element of pain in the little finger was absent. Had each remembered that muscle, skin, articulation, bone, fascia, vessels, and parietal serosa, *may be* the seat of the reflexes, instead of a given cutaneous locality, Hilton's ghost might well be proud of Esculapius's sons.

I believe adherence to these following steps would insure uniformity of interpretation:

1. Local pain in skin or joint is reflex, in the absence of local inflammation, and its true source must be sought in the continuity of the nerve and its branches to both its somatic and visceral distributions.

2. Determine the region of the spine from which somatic nerves proceed to the painful spot, as indicated by the somatic cones on the chart; then determine the group of organs supplied by the corresponding sympathetic nerves, as indicated by the sympathetic cones.

3. The muscles underlying the painful skin are rigid in proportion to the intensity of the pain; both skin-pain and muscular rigidity may be absent in some cases of inflammation of segmentally corresponding organs.

4. Estimate the reflex route of the pain by nerve continuity according to Hilton, the intensity and phenomena of pain according to established physiology.

5. Remember the full distribution of a neural segment to both pre-axial and post-axial parts; to muscle and its investing skin and fascia; to bone, cartilage, and unstriped muscular fibre; to all movable articulations, serous membranes, and muscles, corresponding to a given segment.

6. Local pain giving the sensations of weight, constriction, fullness, uneasiness, heat, dullness, pricking, distress, tenderness, oppression, and burning, is sympathetic, and, after it attains a given intensity, may be reflected over the corresponding somatic nerves as cutting,

shooting, gnawing, darting, tearing, intense, sharp, severe, aching, griping, boring, and fulgurating.

Overlapping of segments.—Embryologically man is a creature of segments. One of the cardinal laws of segmented animals is the overlapping or telescoping of the segments. It may be impossible to distinguish where the cutaneous distribution of a superior nerve ends, and that of an inferior begins; but this is unnecessary, except for purposes of the speculative morphologist. There is always a center of maximal distribution of cutaneous nerves in which sensory reflex phenomena must occur, the malposition of organs to the contrary notwithstanding. The appendix may be under the liver, and faulty rotation of the alimentary canal may have placed even the entire colon on the left side of the body; but these circumstances can in no wise alter the somatic routes over which pain must be reflected; at most, they alter the region of the local pain only.

The intensity of pain depends, first, on the character of the nerve, somatic or sympathetic; second, on the individual nerve, some nerves as the fifth cranial, and internal pudic being much more sensitive than others; third, on the number of nerve fibers involved in the irritation; fourth, on the location of the irritation; fifth, on the condition of the terminal end-organs of sensory nerves; sixth, on the condition of the sensorium; seventh, on the neuralgic temperament; eighth, on nationality; ninth, on unaccountable causes. Recently Dr. Small reported to the Chicago Medical Society two cases of appendicitis, in which both pain and abdominal muscular rigidity were absent. From the standpoint of the physicist we must regard pain as a projectile. A projectile follows the line of greatest traction; second, the point of least resistance; third, the resultant of the two. The line pursued by pain is continuity of nerve fiber, in transit from a distant part of the body to the brain. When we see many clinical cases, as previously mentioned, in which, as in angina pectoris, the sympathetic pain is local and burning, and, later, witness this pain reflected as most intense and lancinating into the chest and extremities, we instinctively inquire how may we logically account for the rapid change in its character? Physiology answers: Intensity of pain is increased in pro-

portion to the number of nerves involved; and possibly this answer is correct. Still, I would like to ask the physiologist and histologist whether or not the small size and frequent interruptions in sympathetic nerves are possible anatomical factors upon which the mild character of local sympathetic pain depends?

I think it may be considered a general law that pain bears a direct ratio to the proximity of the inflamed region to, first, the excretory conduit; second, to the serous covering of an organ. In both acute and chronic inflammation of the kidney, the pain is dull in the back; in renal colic, however, the prodromal pricking character of the local pain, doubtless, rapidly accentuated by the contractions of the ureter, soon becomes, by continuity, severe and excruciating in the penis and scrotum, and, by irradiation, into the abdominal and thoracic walls.

In biliary calculi the prodromal symptoms of subjective pain, when present, are those of local uneasiness; as reflex phenomena, however, in the direct line of nerve-continuity, the pains are severe, cutting, and tearing in character in the abdominal walls and interscapular region, and, by irradiation, in the thorax. Whether or not experience has proven that pain varies in intensity according as the hepatic, cystic, or common bile ducts are invaded, I leave the surgeon to answer.

In suppurative hepatitis there may be serious, deep-seated, inflammation, without pain; when, however, the inflammation is nearer the peritoneal surface of the liver the pain may be reflected to the right shoulder region.

It may be well to remember that the similarity in symptoms between a twisted floating kidney and gall-stones, described by Brose, in a recent article, and quoted by Lee in a still more recent one, is due to an effort on the part of nature to preserve patency of an excretory conduit. The same symptoms may be experimentally produced on short notice by artificially constricting bile duct, intestine, ureter, urethra, or great omentum. Lee is quite right in his assertion that "construction of any hollow viscus in the abdominal cavity, as well as twisting of the great omentum, or a fibroid uterus" will produce a train of typical symptoms represented by pain, nausea, and vomiting, followed by local tenderness. Generalized,

the situation is as follows: Retardation of a free sympathetic nerve communication, between its prevertebral plexus and abdominal hollow viscera and the great omentum, is invariably followed by an effort on the part of nature to reëstablish the nerve communication, and the effort is attended by a chain of symptoms, as previously mentioned. The generalization will not be considered short-coming, I think, when we regard the great omentum, not in the light of a separate organ, but as an integral part of the abdominal portion of the alimentary canal, peritoneal in derivation, but specialized to almost the same degree of intelligence as the Fallopian fimbriæ in a manner most beautifully portrayed by Dr. Oschsner. The nictitating membrane of the eyes of some animals is an active organ of vision; in man, however, its rudiment has morphological value only.

In animals less liable than man to peritoneal infection, the great omentum has morphological value; but in man its function in limiting inflammation alone should entitle it to the highest place in intestinology, and its reflexes are equal in vivacity to those of any organ in the abdominal cavity. In the absence of local inflammation, pains in bone are to be interpreted as an expression of physiological disturbance in some remote region, possibly in the great cavities of the body. Is the unceremonious bombardment of the patient with pills of protoiodide of mercury, directed against bone pains, justifiable in the absence of an incontrovertible history of syphilis?

The functions of the sympathetic in highly specialized animals are indeed far-reaching; reduced to its simplest terms this nerve is the custodian of the life organs, along the special line of apportioning nutriment to them according to their needs. Viscera, whose demands for sustentation are of such vital importance, derive their sympathetic influence from the prevertebral plexuses, endowed with all but complete autonomy. The walls of the trunk and extremities derive their sympathetic influence through delicate nerves, the gray rami communicantes, which do terminal work over the somatic nerves to these parts. It is the gray ramus that enables synovial and serous membranes to flood their respective cavities with fluid, first, for lubrication, and,

second, for the assumptive purpose of drowning out an intruder, as in tubercular hydrops articuli.

The gray ramus is equally concerned both in the growth and regeneration of bone by osteoblasts, and in its physiological and pathological removal by osteoclasts. May not the "growing pains" of childhood be interpreted in a Fothergillian way as a demurrer from these connective tissue bony parts, which fail to receive their requisite amount of blood on account of sluggish activity of the gray rami? Growing bone-pains, however, need no treatment; but, in cases of tardy regeneration of bone, due to hereditary causes, is not the same principle involved as in growing pain? The assumption of insufficient amount of blood will account for neither the pains in the one, nor the tardy ossification in the other, since each may occur in the well-nourished. The philosophical reason, then, must be sought farther back, first, either in a failure of the capillaries to deliver blood, or, second, the osteoblasts fail to appropriate the same. In either case the responsibility rests at the door of the gray ramus communicans, the custodian of the unstriped muscular fibre, bone, cartilage, fasciæ, osteoblasts, and osteoclasts.

In these days of such far-reaching clinical experience, is it assuming too much to venture the assertion that before another decade the clinician will tell us how to stimulate the gray rami through the great somatic nerve-trunks, and by hastening the bone-forming activity of the osteoblasts, add another triumph to medical science? Then the indefinite term "hereditary," which always promptly changes its name when the light of anatomy and physiology reveal its true identity, will be relegated to the rapidly-growing list of obsolete and meaningless words in science. Then will the "growing pains of childhood" be regarded as sympathetic reflex pains over somatic routes; and tardy regeneration of bone as sluggish osteoblasts in need of a stimulating tonic.

In inflammation of the visceral pleura, the cutaneous pain and tenderness will correspond to the distribution of the four upper thoracic nerves. Here, too, possibly, pains in the articulations between the ribs and vertebræ, behind, and the ribs and sternum, in front, must be

taken into account. In the inflammation of the parietal pleura the pain will be in both the thoracic and abdominal walls. In inflammation of the diaphragmatic pleura pain should be manifested in the distribution of the cervical plexus. Stiff neck, immobilization of the depressors of the hyoid bone, burning sensations in the part of the ear supplied by the great auricular nerve would be rational symptoms.

Hilton thus generalizes pain in the back: First, persistent pain in upper one-third coexists, as a rule, with disease of the heart, aneurism of the aorta, disease of trachea and bronchi, and stricture of the æsophagus in the posterior mediastinum; second, persistent pains in the lower one-half of the interscapular region are, as a rule, associated with diseases of the abdominal digestive organs; third, lumbar pains are associated with disease of the ascending and descending colon, kidneys, ureters, lymphatic glands, testicles, and ovaries. Reflex pains from the ovaries and testicles should occur in the distribution of the lumbar plexus; those for the prostate and uterus, in the distribution of the sacral plexus. In either case the phenomena of pain may be manifested in the fifth cranial nerve.

Pain in the scalp, behind, in the region supplied by the great and small occipital nerves, says Hilton, in the absence of local inflammation, is reflex, and in all probability due to disease between the first and second cervical vertebræ. Pain in the rest of the scalp must be sought, first, by examining the distribution of the fifth nerve; second, by interrogating organs supplied by the sympathetic, in which case the pain is reflected upward along the gangliated sympathetic cord.

The penis may be the seat of numerous motor and sensory reflexes. The nerves are: First, the genito-crural to the skin of the base of the organ; second, the internal pudic; third, the hypo-gastric plexus.

The genito-crural nerve corresponds to the sympathetic nerve-supply of the kidney, hence, irritation from this source will be reflected, first, as pain in the penis; second, as retraction of testicle. Anatomically, pain in the testicle should be an early symptom in renal calculus.

The internal pudic nerve supplies the greater part of the integument and the entire glans penis. This nerve

also supplies the rectum, vagina, ischio-rectal fossa, as well as the muscles of the perineal region. It will be apparent that reflex pain in this organ presents numerous diagnostic obstacles, on account of the immense distribution of the internal pudic nerve. The rectum, it should be remembered, may be the seat of a small irritable fissure. The irritation of this may cause a persisting tingling of the glans, suggestive of renal or vesical calculus. A subacute inflammatory action in the ischio-rectal fossa may do likewise.

In all pains of the penis, where we can exclude local irritation, we should bear in mind the erogenous qualities of the internal pudic nerve.

Pain, we must remember, is a common sensation and may occur wherever sensory nerves are distributed. It is produced by a stronger stimulus than normal. The normal stimulus of the cerebral sexual center produces a common sensation called "sexual instinct"; a stronger vita sexualis produces pains which are reflected along its line of least resistance—the internal pudic nerve; exceptionally, however, the sensation may be reflected over the entire distribution of the sacral plexus, and this may account for the secondary erogenous areas. A few days ago, a prominent surgeon told me he had a patient with extreme pain in the penis, and in whom he was unable to diagnose vesical or renal trouble. I am sure the gentleman will not operate upon the case till he has interrogated the entire distribution of the internal pudic nerve and inquired into both the primary and secondary erogenous areas of his patient.

The Trigeminus and Internal Pudic Compared.

It is a matter of physiology that the trigeminus is the most sensitive cranial nerve; it is equally true that the internal pudic is the most sensitive spinal nerve. The trigeminus guards the portals of smell, hearing, taste, sight, and mastication; the internal pudic—those of procreation and extrusion. The trigeminus is attended by white rami communicantes from the thoracic region of the cord which confer dilatation on the pupil, motion to the involuntary fibres of the eyelids and orbit, and vaso-motor fibres to the head; the internal pudic receives in its distribution morphologically

the same, under the name "nervi erigentes," which are vaso-dilator to the generative organs and motor to the longitudinal muscular fibres of the rectum. Each nerve has very extensive primary and secondary reflex communications, both somatic and sympathetic, and each has a strong affinity for the other. The internal pudic is the trigeminal nerve of the pelvic outlet.

A malodorous, irritating, invader of the nasal fossæ is promptly put to flight by reflex sneezing, in which case, the afferent nasal branches of the fifth nerve, a cerebral transfer center, and the motor branches of the cervical plexus form the reflex arc. Through the sympathetic, the nasal mucous membrane participates reflexly. A primary reflex is confined to one nerve; a secondary reflex originates in one nerve and terminates in another. A grain of sand in the eye produces reflex lachrymation; a severe toothache may produce a fixed jaw and pain in the auditory canal. These are reflexes within the fifth nerve, hence primary. Retraction of the general cavernous structures of the penis in the virile reflex, elevation of the testicle in the cremasteric reflex, and genu-extension in the patellar reflex, are examples of primary reflexes in the internal pudic, genito-crural, and anterior crural nerves, respectively.

I believe it is a rule in biology to which there are no exceptions, that the orifices of the body are guarded by the most sensitive nerves—the fifth cranial and internal pudic discharge this custodianship, therefore, they are the most sensitive nerves of the body. It is also a matter of fact that these two nerves owe their great affinity for each other, first, to intimate association of function; second, to some obscure and not yet explained relation which each nerve bears to the special senses. In support of this view it is only necessary to refer to sexual psycopathic phenomena, in which the pelvic parts supplied by the internal pudic nerve respond to sight, smell, audition, and gustation. The bond of union between the fifth nerve and the internal pudic is the gangliated cord, and the cause of marvel is, not that there may be "toothaches in the pelvis," but that there are physicians living who deny the possibility of such reflex phenomena. Irritation of the gums in teething produces reflex vomiting.

Arnold, a bean in the ear produces reflex vomiting.

Fox, pruritus in the ear produces reflex vomiting.

Fox and Romberg, a pyorrhœa alveolaris produces gastritis.

Salisbury, an ovarian tumor produces intense pain in a sound central incisor.

Munger, irritation of nipple, tooth, brachial plexus, produces contraction of the uterus; and, conversely, in endocarditis produces reflex pain in the distribution of the auriculo-temporal branch of the fifth nerve. (Landois.)

On reflex contraction of the uterus, Mrs. C. B. Eckley writes in *The Woman's Medical Journal* for June, 1900, as follows:

The nerves of the uterus are from the third and fourth sacral, from the hypogastric and renal plexuses; the two latter also supply the ovary and fallopian tube.

Contraction of the uterus normally occurs at the menstrual period and at the end of gestation. Premature contraction of the uterus in the course of gestation may produce the dire consequences of a miscarriage. The uterus will contract reflexly on stimulation as follows:

1. Stimulation of the hypogastric plexus.
2. Stimulation of the nervi erigentes.
3. Stimulation of the nipple.
4. Stimulation of the trigeminus.
5. Stimulation of the sacral plexus.
6. Stimulation of the great sciatic nerve.
7. Stimulation of the lumbar plexus.
8. Stimulation of the brachial plexus.
9. Stimulation of the inter-costal nerves.

The hypogastric plexus, better known as the pelvic plexus or inferior hypogastric, supplies the rectum, bladder, prostate in the male and vagina and uterus in the female. In the female it lies on each side of the rectum, bladder and vagina. Branches from this plexus accompany the arteries to the pelvic organs and take the same name as the arteries. This plexus is continued down from the superior hypogastric plexus in the lumbar and upper sacral region. It is joined by branches from the third and fourth sacral nerves, and from the sacral part of the gangliated sympathetic cord. The nervi erigentes, called by Gaskell the pelvic splanchnics, arise from the sacral plexus. They contain vaso-dilator fibres, and stimulation of the nervi erigentes, which may be brought about through stimulation of the sensory nerves of the clitoris, produces erection. In this way contraction of the uterus may be induced by stimulation of the nervi erigentes. These nerves also supply the rectum.

Aloin catharsis is looked upon with disfavor in pregnancy, on account of its action on the lower bowel, and its consequent liability to induce uterine contraction. Mistempered and mistimed injections, rectal and vaginal, are abortifacient and are often resorted to with criminal intent. In those cases reflex-action is through a purely sympathetic circuit.

The time honored Crede's manipulation of the fundus uteri through the abdominal walls, in sluggish contractions, is a resource in obstetric practice too familiar to all to need comment. A painful bunion in one case and a fractured patella in another, have induced miscarriage by reflex contraction of the uterus. The intelligent and conscientious dentist declines to operate on the teeth of pregnant women. The evanescent nature of the neuralgias of pregnancy is appreciated even by the laity. Putting the child to the breast to aid indirectly in producing uterine contraction, has and will be in favor for all time to come. So great has become the confidence of the profession in the action on the uterus of stimulation of the nipple, that by a sort of logic by default we think of a sympathy between these two organs, founded on some sort of structural co-relation or similarity. So in the light of anatomical analysis let us compare the uterus and nipple.

The uterus is a muscular organ seated in the pelvis; the mammary gland is a compound racemose secreting structure situated on the major pectoral muscle. The uterus derives its blood supply from the internal iliac artery; the mammary gland from the subclavian. The uterus derives its nerves from the sacral and hypogastric plexuses; the mammary gland from the intercostal nerves and cervical plexus. The uterus is a derivative of Muller's duct, a supposed invagination of the mesothelium of the body cavity; the mammary gland is traceable to epidermal cells in common with ordinary sebaceous glands.

The so-called sympathy between uterus and mammary gland, must be sought in coincidence of the respective functional activity of the two organs. The functional activity of the uterus gestates a fertilized ovum, and initiates the life of a new being, hungry the moment it arrives; the mammary land gestates lactation, initiating the nutritive process by a mild laxative, baby's first medicine.

There is a wonderful correspondence indeed between the delivery of the child and the consummation of lactation, but this correspondence is paralleled by other physiological processes, the out-put of distinctly removed anatomical organs from each other between which lay and physicians never intimate even the possibility of sympathy. I refer to the separation of urea from the blood in the kidney, and its conduction through the ureter to the bladder, from

which its final elimination from the body takes place; to the reflex action of olfactory and gustatory nerves on the salivary glands and the simultaneous action of the stomach in making preparation for the reception of food; to vicarious functions of skin and mucous membrances when kidney and uterus respectively are temporarily incompetent to carry on elimination of deleterious products.

Reduced to its simplest terms, the case is this, a pregnant woman submits to a dental operation involving pain and in consequence of stimulation of the fifth cranial nerve uterine contractions occur producing a miscarriage; the uterus is at one end of the sympathetic gangliated cord, the fifth cranial nerve is at the other, but why should the irritation respond on the muscular fibre of the uterus?

Both common observation and physiology teach us that when one system of organs is active, other systems are held more or less in functional abeyance. Great and prolonged mental activity conduce to dyspepsia; on the other hand a full stomach surprises the brain. Great orators and vocalists of reputation can testify to the benefit of an empty stomach. This is manifestly so because each organ, when active, requires a certain amount of nerve-force, and the fewer organs calling for nerve-force the greater the power of concentration of the major nerve force along one particular line. If you give the stomach an hour's time for uninterrupted digestion mental work may be resumed with its accustomed ease. Very clearly, the organ most vigorously acting is the one toward which the nerve-force is deflected—it is then the point of greatest traction, and the only way of rationally estimating the remote consequences and importances of this deflection of nerve force, lies in the line of 1. functional importance of the organ; 2. length of time over which its function extends. The importance of gestation need only be referred to be appreciated. Physical, mental and even moral changes in the pregnant woman are in evidence on every hand. The length of time exceeds that of any other functional activity. Is it strange then that nausea and vomiting, the capricious appetite, the dropsical effusion, the jaundice and urticaria, and even the mania and murderous instincts of the pregnant woman are on record?

Characters of pain:—The evidence from all sides converges to establish a duality of pain in connection with the majority of diseased organs; first, local, dull in character, and intensified on pressure; second, reflex, sharp and lancinating in character, and sometimes mitigated by gentle pressure. I quote from two sources—Lee and Harris.

Dr. Lee says: "First, let us take in consideration the following cases: Renal colic and pyosalpinx, twisted pedicle of floating kidney, a twisted pedicle of a dermoid tumor, a strangulated omental hernia, pancreatitis, acute hematokolpos or hematometra. In gall stone colic the initial symptom is pain. This is followed by nausea and vomiting, and later by *local tenderness* in the region of the gall bladder. The pain in the onset is diffuse and of a colicky nature. In renal colic, we have a similar train of symptoms; first, the pain of the colicky character, which is always followed by nausea or vomiting, which, however, as a rule, is not as intense as in appendicitis or in gall-stone colic. In the greater percentage of cases of acute pyosalpinx the initial symptom is pain, which is of a colicky nature, is followed by nausea and vomiting, later by *local tenderness* in the pelvis, and by rise of temperature. In appendicitis, as well as in other abdominal lesions, the pain in the early stage of the disease is of a colicky nature, and due to an acute distention of the organ affected; and the greater the distention, the greater the pain.

Second, as soon as the constriction or the distention has subsided, or the obstruction has been relieved, the reflex colicky pains and vomiting cease, and the pains that are present after this time are of a steady character. They should be described more as *a tenderness in the right iliac fossa* and are due to the circumscribed peritonitis.

Third, this last mentioned pain gradually subsides as the disease progresses toward its favorable termination, either by perforation of the abscess into the bowel, or possibly by the absorption of the circumscribed inflammatory process."

Of pain in renal calculus, Dr. Harris says:

"The pain is of two kinds, acute intermittent paroxysms, which are so familiar to all under the name of renal colic, and the *dull, more or less constant ache* in the lumbar region or the latero-abdominal region. This pain is usually increased by exercise, and may radiate in most any direction, downward to the bladder, upward to the costal region, across the abdomen, or into the thigh. Morris, in his "Renal Surgery," mentions some very interesting and instructive cases showing the

bizarre character which the pain of renal calculus may at times assume. One of the most important features of the pain is that it may be rarely located on the side of the body opposite the kidney affected. Such a case is mentioned by Tuckerman. The pain and tenderness were both on the *opposite side;* Battle mentions a similar case. Persistent pain in the latero-lumbar region, which is otherwise unaccountable, should always excite a suspicion of renal calculus. Tenderness over the region of the kidney, or along the ureter, is often present, and may be of some importance in determining the side affected.

RESUME.

1. Pain is a projectile, and, as such, is governed in its course by the law of projectiles in physics.
2. Pain reported to the sonsorium by sympathetic nerves alone, is dull, heavy, and local, and conveys a sensation of weight and uneasiness.
3. Other common sensations, as hunger, thirst, malaise, fatigue, and the sensations incident to the physiological actions of organs, are reported to the brain by the sympathetic.
4. Pain on the surface of the body or in articulations, unaccompanied by local elevations of temperature, is reflex, and due to continuity of nerve fibre between the pain and the local irritation.
5. Each typical neural segment supplies the muscle segment, the corresponding skin, and serous segments, the vessel segments, and the inter-segmental septa, such as ribs and cartilage, and pre-vertebral organs corresponding to the segment. It consists of, first, a visceral part to organs; second, a somatic part to the trunk and extremities.
6. Pain in any organ may be reflected via the rami communicantes into the somatic part of the neural segment and induce sensory reflex pains in the skin, parietal serous membranes, and articulations, and motor phenomena in voluntary muscles.
7. Where a reflex pain is studied for diagnostic purpose, each joint and serous membrane, as well as each muscle supplied by the same neural segment,

should be interrogated, as well as the skin, for reflex phenomena.

8. In organic diseases of viscera there may be two varieties of pain; first, local, which may be identified by pressure, and which is described by authors as a sensation of weight, oppression, dullness, burning, and uneasiness, etc.; second, reflex, more or less remote from the diseased locality, in the skin, bone, or articulation, and described by authors as sharp, cutting, stabbing, boring, tearing, fulgurating, etc.; and may be partially relieved by pressure.

9. The bones, cartilages, and unstriped muscular fibre of the trunk and extremities, are supplied with the gray rami communicantes. The gray rami communicantes travel with somatic nerves and are set aside specifically as custodians of the osteoblasts, osteoclasts, bones, fasciæ, and unstriped muscular fibre.

10. The internal pudic nerve and the trigeminus are the most sensitive somatic nerves in the body, because they guard the somatic orifices; they are in strong affinity with and related to each other principally on account of some psychic cause not demonstrable; the gangliated sympathetic cord between the two is a tangible line, both of greatest traction and least resistance, and there are no reflexes between the parts supplied by the two nerves, which can not be explained by the fundamental principle of Hiltonism.

DISCUSSION.

Dr. R. M. Cunningham: The two papers just read are exceedingly interesting and practical. The paper of Dr. Eckley embraces the fundamental principles of the subject to which it relates and is unique in literature.

If there is anything that is known to physiologists it is the physiology of the nervous system; if there is anything that the general medical profession knows little about it is the nervous system.

These papers can be read with great profit and I hope will be read by the members of the Association when they appear in the volume of Transactions.

I regret that Dr. Eckley could not be present to read his paper in person.

ACUTE ENTERO-COLITIS IN INFANCY.

By Louis William Johnston, M. D., Tuskegee.
Senior Counsellor of the Medical Association of the State of Alabama.

No subject is more important, especially at this period of the year, than that of Acute Entero-Colitis in Infancy. As physicians we are often called upon to combat this disease—so dreaded by mothers—and, unfortunately, in many instances, find it occurring among the poorer classes, where, alas! so often asepsis and other valuable therapeutic measures are unobtainable.

When we realize the great mortality of this disease, being greater than that of any other acute disease of childhood, our minds naturally turn to prophylaxis, than which no more promising field is open to investigation and study.

Prophylaxis should aim at the solution of two distinct problems: (1) The removal of the causes which interfere with the proper growth and development of children. (2) The prevention of infection. The former can come only through the education, first, of the profession, and then, of the general public, in the fundamental principles of infant feeding and hygiene. This is a department which has received altogether too small a place in medical education. The latter must come through the profession and through legislation, the purpose of which shall be more thorough disinfection, and improved sanitation in all departments.

Entero-colitis is a disease of the hot months and of the period of teething, though not confined to either. Exposure to cold and damp, the sudden suppression of perspiration, over-crowding, over-feeding, and irritating contents of the bowels, are the most common exciting causes. It may be secondary to any of the infectious diseases, particularly measles, diphtheria, and broncho-pneumonia.

We are still in doubt as to the part contagion plays in the production of the disease. Booker found that the deeper lesions were almost invariably associated with the presence of streptococci, but whether they are primary or

secondary is not easy to determine. Amœbæ have been found by Cahen and others in the stools of typical cases, but thus far too few observations have been made to admit of any deduction.

PATHOLOGY.

The morbid changes are found chiefly in the ileum and colon. In the first stage, the mucous membrane is congested and swollen. In places, the epithelium appears exfoliated. After the first week the enlarged follicles and Peyer's patches become ulcerated. The disease may end here, or become more extensive, the ulcers enlarging and deepening to the muscular coat, with the separation of a slough. Or, there may be a diffuse infiltration of the coats of the bowel with small cells, producing a decided thickening of the same, with more or less obliteration of their distinct structure. The process may be so intense as to cause coagulation-necrosis—false membrane. (Tyson.) The liver and portal circulation are always engorged.

SYMPTOMS.

This affection shows many grades of severity, proportionate to the extent of intestine involved and the intensity of the inflammatory process, the symptoms varying accordingly. There is increased languor, great fretfulness, and fever. The early catarrh is attended by green, acid stools, with lumps of casein. At first, the tongue is furred and moist. It soon becomes red and dry, and vomiting ensues. The stools are offensive and frequent; and, in addition to the appearance first indicated, contain mucus and blood. Death may take place within the first week on account of exhaustion from the vomiting and diarrhœa. If the disease is protracted it is attended by great wasting, symptoms of hydrocephalus, skin eruptions, hypostatic pneumonia, and extremely weak circulation. A sudden rise of temperature in the course of an attack would point to some complication, or to extension of the inflammation to new areas. The head and the nervous system are generally only slightly affected, though we sometimes have twitching and convulsions. The stools vary in number from two to twenty or thirty

per diem. In severe and protracted cases the stomach becomes greatly disordered, nausea and vomiting are troublesome and the breath is sour, offensive, and, at last, even fetid. The lips and teeth are covered with sordes. Colicky or griping abdominal pain is a quite constant symptom. Tenderness on pressure is usually present. Tympanites is a common symptom. Considerable enlargement of the abdomen occurs in cases in which the muscular coats of the intestines have become weakened or paralyzed by the inflammation. Tenesmus and prolapsus ani are not uncommon. In mild cases improvement may commence in the course of two or three days and easy convalescence be established. Even in these cases, however, relapse is easy from indiscretion of diet or mild exposure. In the severer cases, the course is often prolonged to from three to six weeks. There is more pyrexia. The diarrhœa is increased. The tongue becomes dry, red, or brown, the face anxious, cold, clammy, and purplish; and the pulse small, weak, and rapid. Hiccough occurs and cannot be relieved. The patient lies on the back with knees drawn up. Death may occur from asthenia, septicæmia, or perforation and peritonitis. Slow and tedious convalescence may occur, or the disease may assume the chronic form.

DIAGNOSIS.

Acute entero-colitis is to be distinguished from cholera infantum, acute dyspeptic diarrhæa, typhoid fever and intussusception. From cholera infantum it differs in its lower hyperpyrexia, and in the absence of vomiting, colliquative diarrhœa, and of collapse. It is characterized by greater severity than acute dyspeptic diarrhœa, and by high fever, the large amount of mucous in the stools, the greater pain and suffering, and the more rapid decline. Typhoid is usually distinguished by its more constant fever, the enlargement of the spleen, the tympanitic distension of the abdomen, and, most of all, by the eruption. The fact of an epidemic prevailing is also to be considered. Intussusception is marked by a very sudden onset, the amount of blood is quite large, often as much as a tablespoonful; there is vomiting, sometimes persistent, with marked prostration, but no fever; stoppage of bowels, abdominal tension, tympanitis, rising

temperature, stercoraceous vomiting and collapse, all different from the phenomena of dysenteric colitis.

PROGNOSIS.

It is never safe to give a positively favorable prognosis until the end of the hot season, on account of the great liability of these cases to relapses and recurrent attacks. Cases occurring in June or early in July have a worse prognosis than those occurring in the latter part of August or in September, for the reason that the earlier cases have still the greater part of the summer to get through, and are likely to suffer from relapses during the rest of the warm weather. In cities, among the poorer classes, and in institutions, and in the presence of any complication, the prognosis is still less favorable. The particular symptoms which make the prognosis bad are a continued elevation of the temperature, frequent vomiting, rapid wasting, and continuous, severe, nervous symptoms. Do not give up the little patients too quickly, for I have seen cases where all hope was lost, the children becoming too feeble to swallow, but by feeding with the stomach tube, and by inunctions of oil or lard the vital forces would rally and recovery take place.

TREATMENT.

Having laid down the important hygienic rules of fresh air, frequent bathings, cold cloths, and not too frequent feeding as preventive means of this disease, Chapin thoroughly discusses the subject of its treatment. Bearing in mind that a majority of the cases are caused by milk poisoning, all forms of milk should be temporarily with-held. In the interval, water may be frequently given, with the addition of a little lime water. If the stomach tends to reject it, reduce the quantity. Many a case would be stopped at the very beginning if milk were entirely with-held for from twelve to forty-eight hours. When this is necessary for any length of time other forms of nourishment may easily be substituted. The white of an egg stirred in half a glass of cool water forms a pure and easily assimilable albumen water. The only objection is its tastelessness, but Chapin overcomes this by the addition of about two drops of aromatic spirits of

ammonia. When there is a tendency to vomit the ammonia seems to check the stomach irritation. Among other substitutes for milk may be mentioned thin gruels, made from barley or wheat flour, broths, beef juice; also some of the prepared milk foods. I use one preparation more than all others at this period, namely, the beef peptonoids with creosote, and I have seen very few stomachs reject it. Not only do I use this preparation for sustaining the patient but for the beneficial effect of the creosote, which I think is the ideal antiseptic in these cases. I will call your attention to this later. When the acute symptoms have subsided and milk is resumed it must be taken at long intervals and with high dilution. With regard to drugs: I think if the patient has been sick for several days before a physician is called in, and, as is usual, you find high temperature, I would always use stomach lavage and high enemeta with normal salt solution, unless the patient is very nervous and excitable. Then follow with calomel, one-tenth of a grain every hour, with 15 to 30 drops each of liquid phos-soda and elixir of pepsin, until six or eight doses have been administered. These small doses act as a sort of stimulant to the bowel, increase glandular secretion, and usually effectively clear the canal of its fermenting contents. A good size dose of castor oil is also effectual, and is followed by a sedative effect on the mucous membrane. After you have flushed the alimentary tract, place a baby of from six to twelve months on from 10 to 20 grains of the subnitrate of bismuth in a weak creosote emulsion about every 2 or 3 hours.

The insoluble quality of bismuth and its sedative local effect make it most valuable. Irritation and fermentation, even under proper dietetic management, remain long in the ileum and colon, and this tract is reached by the local action of the bismuth. The creosote has a special sedative action upon the nerves of the stomach, and allays irritability and nausea. Being a superior antiseptic it exerts its germicidal effect through the whole alimentary tract, and the secretions seem to keep up better under its influence. We are not so likely to have complications when we keep patients under the influence of creosote. Fever is best controlled with cold applications, or baths. I always advise the use of some antisep-

tic mouth wash. For relieving the nervous symptoms, and frequently when suffering, 10 to 30 drops of bromidia by the rectum, well diluted, gives splendid results. Anodynes should be tried before using opiates.

Opium is contra-indicated until the bowel has been thoroughly emptied of irritating contents; especially when the stools are scanty and foul-smelling, and when cerebral symptoms threaten. In cases, however, in which rapid peristalsis and profuse glandular secretion persist, a few moderate doses of opium are most valuable. It should never be combined with other drugs. Small doses of aromatic spirits of ammonia, say 10 to 20 drops well diluted with water seem to stimulate the mucous membrane and refresh the infant. Alcohol should be given very sparingly in these cases, as it seems to lower the digestive powers. In cases of great weakness, or collapse, from 10 to 30 drops of whiskey, well diluted, may be administered. If the discharges are profuse and exhausting, and the baby sinks into a semi-stupor, with depressed fontanelle, very free stimulation with whiskey and ammonia is indicated, as spurious hydrocephalus is thus ushered in. Hypodermoclysis has been used with beneficial results in such conditions. In case of collapse, hot injections (110 to 115 degrees F) have been advised, and in case of high temperature ice water may be used with advantage. In using enemata for local effect the intestines should first be emptied by an ordinary saline solution, except when nitrate of silver is to be used; then simple water should be employed. The clyster is used about half an hour afterwards, and should not be over 2 to 6 ounces, slowly introduced, the buttocks being pressed firmly together and thus held for twenty to forty minutes. For use in this manner the following substances are to be preferred, (1) Bismuth suspended in mucilage (℥ss to ℥i) from four to six ounces to be injected, (2) Tannic Acid (Grs $\overline{xx}$ to ℥i) same quantity of vehicle to be used. (3) Nitrate silver (Grs $\overline{ii}$ to ℥ss) in four ounces of water. (4) Boracic Acid (℥i) in four ounces of water, and (5) Bland mucilaginous mixtures, with opium. For tenesmus, suppositories con-

taining half a grain of cocaine sometimes act like a charm. Dr. J. H. Kellogg, of Battle Creek, advises the use of the hot blanket pack to produce dilatation of the cutaneous vessels, and then follows this by a cold wet hand rub, or by placing the child in a sheet wrung out of cold water, with the addition of a blanket to prevent chilling of the patient. In case of persistent vomiting, the use of gastric lavage and the application of an ice bag over the stomach is recommended; for the control of frequency of stools, the use of an enema at 105 to 110 degrees following each stool; also the use of fomentations to the abdomen for ten to fifteen minutes every two or three hours, followed by the application of a heating compress consisting of a towel of cheese cloth wet in cold water and covered by two or three thicknesses of flannel. During convalescence it is better generally to stop all treatment with reference to the bowels and to direct our efforts to general tonic measures.

DISCUSSION.

Dr. W. W. Harper: We must first recognize the fact that this is a contagious disease. We know it is due to germs which inhabit the intestinal tract. These germs enter the mouth as an open door and reaching the alimentary canal begin to manufacture toxins. It occurs more frequently in children who are artificially fed, therefore, it becomes important for the physician to educate the people to understand that children nursed naturally are the children that are going to be healthful. I am sorry to say that society is such now that mothers do not care to nurse their children. They should remember that there is no higher sphere in life than for a woman to be a mother. Where it is impossible for the mothers to nurse their children, then, we should impress it upon them to see that the milk supply is from a healthful source. In the treatment of this affection I want to insist upon with-holding milk. It should be with-held twenty-four or forty-eight hours. Instead of opiates, I believe we can relieve the nervousness by phenacetine, not reduce the temperature, but relieve the nervousness. I want to put myself on record as being opposed to intestinal antiseptics. They are absorbed before they reach the seat of the disease.

Dr. T. D. Parke: It is not the weather that affects the disease, it is the milk. You must have the milk sterilized. Dr. Harper spoke of withholding the milk for twenty-four or twenty-eight hours. That is not long enough: even seventy-two hours is often not too long. I had a patient, eighteen month old, that was taken with convulsions, high temperature, bloody actions, etc. I had the confidence of the family and ordered that the child must have no food. For five days and nights that child had nothing but water. Now, I believe the child would have died had I fed it. You need have no fear of starving children, and I insist that you have the courage to withdraw the food of children suffering from this affection until the grave symptoms yield.

Dr. Johnston (closing): I only wish to emphasize the importance of educating mothers to the fact that children can live without nursing every half hour. As to opiates, I have seen bad effects from them in these cases. It is better to give some anodyne, but usually irrigation quiets the child.

WHAT IS THE BEST CLOSURE AND DRESSING IN ASEPTIC CASES?

By Goldsby King, M. D., Selma.

Senior Counsellor of the Medical Association of the State of Alabama.

The best closure is a union of peritoneum with peritoneum, muscle with muscle, fascia with fascia, fat with fat, and skin with skin, by buried, continuous, animal sutures.

What are the best suture materials, and methods to use in such a closure? The best suture materials are catgut, sterilized by the method of Dr. John G. Clark, and kangaroo tendon, prepared under the supervision of Dr. Henry O. Marcy. The best, because of facility and uniformity of use as a continuous suture, they cause no

irritation, hold the tissues in exact approximation until firmly united, permit no separation of the scar nor hernia, necessitate no removal, become absorbed, "and *pari passu* with their absorption a living band of connective tissue cells replaces the whole line of the suture."

The good qualities of silver wire, and silk-worm gut are easy, perfect, and permanent, sterilization, and such a hold upon the tissues that a separation of the incision is impossible. The bad qualities of silver wire, and silk-worm gut are: Impossibility of use as a continuous suture, except for the union of skin with skin; they cause, occasionally, such irritation that makes their removal imperative; they do not become absorbed, hence their removal from the skin becomes necessary.

Silk is easily and perfectly sterilized by the method of Dr. W. S. Halsted, but is unfitted for use as a buried suture, because, when buried, it becomes encysted, and may cause an irritation at any time.

What is the best method to use in such a closure?

The best method is not to unite all the layers by interrupted sutures, with its danger of infection, its faulty coaptation of layer to layer, its discomfort of irritating sutures, and their removal, and its stitch abscesses, and painful and unsightly scars.

The best method is to unite the peritoneum by a continuous suture of fine catgut. The union of muscle to muscle, and of fascia to fascia is best obtained by the use of the continuous double kangaroo tendon suture, after the method devised, and so long practiced by Dr. Henry O. Marcy. The fat is best united and dead spaces avoided by a continuous cat gut suture piercing the fat from side to side. The best union of the skin is by a subcuticular cat gut suture, which should be buried in the tough corium, and not penetrate the epithelium.

What is the best dressing in aseptic cases?

The silver foil dressing, as worked out and practiced by Dr. W. S. Halsted, is without doubt the best dressing in aseptic wounds, closed by buried sutures.

It is superior to the collodion seal, and all other dressings, by reason of its germicidal properties, its close and permanent adhesion to the skin, its perfect occlusion, and its non-irritating qualties. An abundant gauze dressing should be next applied, and this should be held in place, and muscular movements restrained, by a Scultetus bandage.

What are the advantages and results of this closure and dressing?

Only one dressing is required, and that at the time of the operation, when aseptic precautions are the best. The safety of such a closure was well illustrated in a case of severe typhoid fever, in which an operation for appendicitis was done. A few days after the operation, a gangrene of the fat and skin began between the external lip of the crest of the ilium and the inferior border of the twelfth rib, and, advancing rapidly from right to left, swept over the incision, and was arrested at the median line.

The skin and fat were removed, but the buried kangaroo tendon sutures held the fascia and muscles firmly, and the wound soon presented a healthy, granulating surface. A month after the operation this patient died of repeated hemorrhages from the bowels.

The advantages of the closure of a lacerated perineum by buried kangaroo tendon, in layers, with an occlusive dressing, are so many and so great that it must soon be universally used.

The results of the methods herein described are ideal. The abdominal incision is so absolutely free of any sensation that no patient of ours has ever been able to correctly locate it. The incisions have united per primam, without exception. Neither a hernia, nor a stitch abscess, has ever followed. There have been no painful nor unsightly scars. The temperature has not usually been higher than one hundred, and that for only one or two days.

In conclusion, permit me to emphasize two truths:

First, that a buried animal suture should always be used as a continuous suture as, by this method, material is economized and knots and constriction of tissues avoided.

Second, and most important, one should never use buried sutures nor an occlusive dressing, unless he is absolutely sure of the surgical cleanness of himself, his assistants, his materials, his surroundings, and of the perfectness of his hemostasis.

DISCUSSION.

Dr. W. H. Hudson: The paper just read is interesting and improving. I agree with the author as

to the method of closing wounds. I would hesitate to use cat gut, unless cumolized. As to the silver foil, it must be sterilized and this cannot be done in a short time and when done requires a great deal of heat. In reference to uniting wounds in appendicitis, it is advisable to stick to silver wire, but when you expect an infection use cat gut. For the present we will have nothing that will improve on the silver foil. I am sure that Dr. King's paper has been appreciated.

PATHOLOGICAL CONDITIONS CAUSING ABORTION AND PREMATURE LABOR, WITH REPORT OF CASES.

By Francis A. Webb, M. D., Calvert.

Member of the Medical Association of the State of Alabama.

Looking back over an experience of nearly twenty years, I can recall no class of cases the treatment of which has caused me more anxiety and doubt, or in regard to which I have found it more difficult to get satisfactory rules from books or consultation, than the pathological conditions that cause abortion and premature labor.

It is not my purpose to discuss all of the pathological conditions that cause abortion or premature labor; time would not permit, nor would it be profitable to do so. My purpose is to present in a practical way a few cases that have come under my observation, with the hope of provoking a general discussion and exchange of opinions.

For convenience I will designate the cases, A. B. and C.

Case A. Multipara—aged 27, mother of three children.

This patient consulted me during the month of February. Her last menstrual period occurred in December. She had menstruated regularly up to that time. In February the flow had returned, was profuse and watery, and accompanied with more pain that usual. She

thought she was pregnant, but could not understand the return of the flow, nor its profuse, watery, character. On inquiry I learned that she had never aborted, the family history was good, there was no specific trouble, but she had suffered a good deal from dysmenorrhœa before marriage, though not since the birth of her first child. On further examination I felt assured that my patient was pregnant and threatened with abortion. She was ordered sedatives, cautioned to keep her bed for several days and to avoid all exertion.

My instructions were carried out to the letter, but the flow returned in about two weeks, the pain more severe and the flow watery and more profuse. Consultation was then requested. My consultant agreed with me both as to diagnosis (Hydrorrhoea Gravidarum with threatened abortion) and treatment. The main reason for consultation was to discuss whether further efforts should be made to prevent the premature expulsion of the fœtus, or whether nature should be assisted in her efforts to throw it off. I could see that my patient, from confinement to bed and the repeated profuse discharges, accompanied with pain, anæmia, and great anxiety was growing weaker every day; and that the fœtus, from lack of nutrition, could hardly be expected to survive, even if carried to full term. My consultant admitted all this, but believed it best to let nature have her way and make further efforts to prolong the pregnancy. The patient was cautioned to keep her bed and the usual treatment ordered, to prevent, if possible, the threatened trouble. Notwithstanding the best efforts on the part of patient and physician, the pains and the profuse discharge would recur every week or ten days, and, just as gestation reached the seventh month, premature labor came on and resulted in the delivery of a poorly nourished male child, which survived only a few minutes.

My patient, by a confinement to bed of over three months, loss of appetite, profuse flow, anxiety, etc., had so run down that it was by a narrow escape she passed through the ordeal of labor. It required months of tonic treatment to restore her to health.

It is my honest conviction that it would have been good practice and justifiable to have terminated this threatened trouble earlier, and thus to have enabled my

patient to avoid many doses of medicine, and, above all, to escape the danger that threatened her life.

Case B. Multipara.—Mother of three boys. Youngest child, six years old.

I was called June 3rd to see this case. She gave the following history: Had menstruated last in January; her former pregnancies had been normal; had never aborted. For two days prior to my visit she had suffered from pains and hemorrhage. She believed she was five months pregnant and that the trouble had been brought on by over-exertion.

On examination I found the os slightly dilated. There was yet considerable pain and hemorrhage. Diagnosis: Accidental hemorrhage from placental detachment, caused by violent exercise, and, as a consequence, threatened premature expulsion of the fœtus. The patient was confined strictly to bed and put on treatment, to arrest, if possible, the threatened trouble. I was sent for again on June 6th. She had not obeyed instructions in regard to the recumbent position, but had gotten up that day and had a return of all the symptoms. She was again ordered to keep her bed and the treatment was continued. The patient remained in bed after this, but had hemorrhage and pain again on the 11th. I was sent for and saw the case with Dr. J. T. Searcy, as a consulting physician. He advised that we still temporize and continue the treatment, at the same time expressing the opinion that the case would eventually terminate in a premature expulsion of the child, but thought best not to interfere. I was called again in great haste on the 29th, this time to find the patient in active labor, the os well dilated and a very foul discharge flowing from the uterus and vagina, the patient with a rapid pulse and temperature of 103 degrees. The fœtus was expelled, dead and almost decomposed; the placenta, also, in a state of decomposition. The uterus and vagina were washed out with an antiseptic solution and the patient put on ergot, strychnia, and quinine. For several days her condition was critical from septic trouble, but she eventually recovered.

The pathological condition causing this premature labor was: Separation and detachment of the placenta, followed by pain and hemorrhage, and, as a consequence,

mal-nutrition of the child, and, finally, its death and decomposition.

My conviction is that had the uterus been emptied on my second visit, June 6th, my patient would have had a much better chance for life; the danger from the decomposing child and placenta and consequent septic trouble would have been less, or altogether averted, and her physical condition would have been much better able to withstand the ordeal. With a patient five miles away, with an extensive country practice to look after, you can imagine the anxiety of the physician; and also of the patient, under such circumstances.

Case C. Multipara—Mother of two children; youngest twenty-three months old; had never aborted. I was consulted May 4th and she gave the following history: Prior to December 20th she had menstruated regularly. Her menses did not appear on January 20th. She had had a profuse leucorrhœa since December. On March 17th she had a fall, followed, immediately, by pain in left side and uterine region, also, by a profuse watery discharge from uterus and vagina. This watery discharge continued for several days. On April 5th she menstruated (as she thought) profusely, the flow continuing for five days, accompanied by severe pain. Then, for the week following, there was a dark, muddy, offensive discharge. On April 26th she again had a flow for three days. This flow had the appearance of blood, and some clots were expelled. On vaginal examination, I found the uterus enlarged and flexed toward the right side. The os was not then dilated. Owing to the thick abdominal walls, it was not easy to ascertain the exact size of the uterus. From such data, and well-knowing that several pathological conditions might furnish a similar history and produce many of the symptoms detailed, diagnosis was no easy matter. Several possibilities existed: First, That the woman was impregnated in the month of December and had aborted on March 17th (date of the fall and profuse watery discharge), the fœtal envelopes having been retained; or she was still pregnant, the amniotic fluid having escaped and the uterus having contracted down on the retained fœtus and envelopes.

Second. The condition might be due to sub-involution, with menstrual irregularity.

Third. Chronic corporeal endo-metritis, or chronic corporeal metritis might exist. The eroded os uteri and profuse leucorrhoea were symptoms of this condition.

Fourth. The enlarged uterus and irregular menstruation might be due to a sub-mucous fibroid.

Fifth. We might have a case of ectopic gestation. In this condition we have signs of pregnancy, cessation of menstruation, or, the flow is replaced by peculiar hemorrhages; nausea, vomiting, and capricious appetite are noted. Some of the mammary signs, such as increase in size of nipple and glandular follicles, pigmentation, œdema, and elevation of the primary areola and enlarged veins, are often present. Pelvic discomfort is marked; indeed, compared with ordinary pregnancy these symptoms are often more pronounced. Hemorrhages from the uterus are apt to occur in gushes of larger or smaller amount, and are especially liable to appear at the time of menstruation, and with marked pain. The hemorrhages and decidual clots often suggest abortion or premature labor.

A decidual clot is often thrown off, and this cast has no fœtal villosities. It may be discharged entire or by piece-meal, and shreds must be looked for.

The patient suffers from paroxysms of pain, which are abrupt and violent, supervening in apparent health, cramp-like in character and usually referred to the fruit sack, while the more acute symptoms are attended with collapse and signs of internal hemorrhage. On bimanual examination the uterus is found: first, enlarged; second, is displaced according to the size and situation of fruit sack; third, the cervix is open; fourth, the uterine cavity empty. The tumor, which is detected beside the uterus or behind it, is a cyst, (1) tense (2) tender, (3) pulsating, (4) rapidly growing. This tumor is exceedingly sensitive. There is extraordinary pulsation, which can be easily felt.

After a careful study of the history of the case, and all that could be ascertained by vaginal examination, the diagnosis and line of treatment were not clear; consequently, I requested consultation. Dr. G. Owen kindly consented to examine the case with me. Next day, (May

after a careful examination by Dr. Owen he formally confirmed that the case was extra uterine and the diagnosis correct. He also said that the patient must be seen by a surgical man, a thing nothing pleased it, and that we must immediately. On the night of May the 12th I was called upon the telephone to come to my patient in great haste. I started as soon as possible to find that Dr. B. in attendance and very imminent as the case was so urgent, and we therefore had consultation. I found him in charge on my arrival. My patient's condition was critical, in the extreme, a state of collapse and shock from which she scarcely rallied. Dr. B. Owen was also sent for. The vagina was tamponed, and the patient treated for the condition of collapse and shock. I remained with the patient Dr. Owen as by the case with me the next morning. We removed the tampon and washed out the vagina with an antiseptic solution. Dr. Owen then made a vaginal examination. Your reporter attempted to follow him, but the patient became faint and he had to desist. After the examination by Dr. Owen, he was strong in the opinion that it was a case of ectopic gestation, although not certain. Although some of the symptoms and the history of the case would lead to suspicion of ectopic gestation, yet, in my opinion the trouble was intra-uterine. Dr. William M. Mastin was called in consultation with us and after examination expressed himself as not satisfied, as he could not in the patient's extremely low condition make the careful examination he wished. He regarded the case as obscure, with some symptoms pointing to ectopic gestation, but the preponderance of evidence was, in his opinion, that the trouble was intra uterine. Dr. Mastin advised that as soon as the patient's condition would permit, she be removed to the Providence Infirmary, put under an anæsthetic, the uterus investigated, the diagnosis cleared up, and if the trouble was found to be extra uterine, to operate. May 13th the patient was removed to the Infirmary. May 14th, it was agreed that Drs. Owen, Mastin, Webb, Maréchal, Haines, and Thomas meet at the Infirmary to clear up the diagnosis, and operate, if necessary. The patient had been well prepared for the examination and operation, and every thing was in readiness, when Dr. Mastin telephoned that it would be impossible for him to be present. After consultation it was agreed that we had best not de-

lay the examination. Ether was administered by Dr. Maréchal. Dr. Owen requested Dr. Thomas to make a vaginal examination. Dr. Thomas said that the uterus was larger than normal, but he was not sure of the cause. The patient was then brought to the edge of the table, the uterus dilated, with Goodell's steel dilator, and with some difficulty I succeeded in passing my finger through the internal os and found a fœtus in utero. It had been agreed if the diagnosis proved that the cause was intra-uterine to pack the neck of the uterus with iodoform gauze, tampon the vagina and let nature expel the fœtus. This was done and the patient put back to bed. She came out well from under the ether, and rested well all the evening and during the night. Later on, the pains came on and the patient was delivered of a dead foetus, of five or six months. She eventually made a good recovery.

It is my honest conviction that when cases present the history and the symptoms of the three, just outlined, it is the plain duty of the physician not to procrastinate, but, using every antiseptic precaution, to make a thorough and decisive examination of the uterus, and, if necessary, empty it. I believe in conservatism and the old adage "meddlesome midwifery is bad," yet, when the patient's life is in danger from threatened hemorrhage that may occur at any moment, or when her health is impaired from long confinement, and there is great risk of septic trouble, it is our duty to act, and not increase the jeopardy by an attitude of so-called masterly inactivity.

Were it necessary the reports of similar cases could be multiplied. The three just selected from my note book are ample, however, to demonstrate the truth of my first proposition, namely, that great difficulties surround the class of cases of which I speak, to overcome which it is often not easy to find advice, either from books or consulting doctors. I would not be understood to rashly advocate the emptying of the uterus from any and every pathological cause, without due deliberation and consultation; but I do condemn the procrastination so often practiced both by attending physician and consultant. Indeed, it is my opinion that every pregnant woman whose case presents a pathological condition should be regarded with the same care and

treated on the same principles that govern modern scientific surgery. My contention is that after due deliberation and consultation we should meet these pathological conditions causing abortion and premature labor with timely and scientific help.

NEEDED REFORMS IN THE MANAGEMENT OF YOUTHFUL AND INSANE CRIMINALS.

By William Glassell Somerville, A. B., M. D., Tuscaloosa.
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Some one has said "the prisoner is a moral and physical patient, more or less curable, and we must apply to him the great principles of the art of medicine. To a diversity of ills we must apply a diversity of remedies." Thus, it is to the physician, and not to the moralist and lawmaker, that society will have to look for the repression and correction of vice and crime.

There are two great causes which make every man what he is, viz., Heredity and Environment. That the moral disposition for good and evil, including criminal tendencies, love, hatred, courage, and cruelty, are transmitted from parents to children, or from one generation to another, has been proved, and is as firmly believed by all scientific men as the fact that parents transmit to their children the physical qualities of beauty, color of eyes, or hair, and shape of nose. As there are exceptions to physical transmissions, so, there are exceptions to the transmission of moral qualities. Occasionally, we find a son or daughter totally unlike either father or mother in physical appearance, while, on the other hand, we find one child, the so-called "black sheep of the flock," who evinces

marked criminal tendencies. The question naturally arises, why this difference? Why does not the law of heredity hold good? Our answer to this would be that these are apparent exceptions, and that from some former generation this moral obliquity comes, latent, it may be, for several generations, but retaining its potential energy, and, perhaps, nurtured by external influences, until finally, it makes its appearance in some unfortunate one, handed down to him as a legacy from an erring ancestor. The mental and moral deficiency in the parents does not necessarily manifest itself in the children in the same form. In one generation we find insanity, in another epilepsy, or some other neurosis; some may have strong criminal tendencies, or are defective in moral sense,—in short, they are degenerates. As Maudsley so aptly expresses it, "there is a destiny made for a man by his ancestors, and no one can elude, were he able to attempt it, the tyranny of his organization."

There are many who recognize hereditary influence in animals, but fail to recognize it in man. Occasionally, we find in a litter of puppies one who differs entirely from the parents and the others, either in color or mental qualities. When we wish to buy a horse, a cow, or a dog, we are governed to a great extent by the qualities of the parents,—in other words, pedigree is the controlling influence. The history of a remarkable family, known as the "Jukes," has been traced through seven generations, including 709 persons, every one of whom was a thief, robber, murderer, prostitute, or lunatic.

When we speak of environments, we use the term in its broadest sense, including education in general; mental and moral, religious and social, physical and political conditions. Hereditary influences are coeval with the beginning of mankind, and will be felt to the end. Environment and education are the powers and circumstances which are to a greater or less extent modifying heredity in the present and future generations. By proper environment and education, along with social reforms, ancestral tendencies to vice can, to some extent, be overcome, and much done to prevent the increase of the defective and degenerate classes.

With every mental act and every deed there is a decomposition or molecular change in some of the brain cells, followed by rapid repair; but this repair is not an exact reproduction of the brain tissue,—a modification is produced in its substance, the character of the modification depending upon the quality of the thought or act performed; that is, if any given act or deed is good, that modification which takes place in the reproduction of the brain tissue is such that this same portion of the brain will, in the future, more easily generate thoughts and deeds of even a higher standard. On the other hand, if any given thought or deed is evil, the modification which takes place is of a different character, and in this case we have brain tissue which, should occasion arise, is more likely than before to generate thoughts of a lower standard. Thoughts and deeds of a good or evil character are produced by education and environment, being, of course, modified to a great extent by hereditary influences; and it is in this way that proper education and surroundings elevate the functions of the brain, so that it will generate thoughts and deeds far nobler, less selfish, and more moral than it was wont.

The object of all law is to protect society and to prevent crime. It is the criminal we should consider, and not the crime alone,—the crime is merely one symptom of a defective organization. No two criminals are, perhaps, exactly similar, hence each class should be dealt with differently. Each criminal should be examined just as we diagnose disease, observing his heredity, physical and psychological characteristics, and his environments, taking a complete clinical history of him, so far as possible; whether congenital or acquired, whether capable or incapable of rectification and improvement.

Prof. Ferri, in his work on "Criminal Sociology," makes the following classification of criminals: "1. Criminal madmen; 2, born criminals; 3, criminals by contracted habits; 4, occasional criminals; 5, criminals of passion."

The class of "criminal madmen" consists of those who commit crimes while insane, and includes homicidal mania, moral insanity, and some cases of paranoia. They are, as a rule, hereditary, though latent until the

periods of puberty and adolescence, or later in life. These cases shade imperceptibly into the "born criminals," who are degenerates—true moral imbeciles; their moral insensibility is such that they have no self-control against crime; their crime is a neurosis. "They are like a painter in his studio, dreaming of their next masterpiece," and are unaffected by punishment, which is a natural risk of their occupation, just as miners or those who handle dynamite do not reckon the dangers to which they are exposed, and are uninfluenced by the terrible accidents which so frequently befall their fellow workmen. The criminal insane and the born criminal are not *morally* responsible, inasmuch as they are congenitally defective, and hence not responsible for their degeneracy. Yet, these two classes, as well as all classes of criminals, are *legally* responsible, for social defense requires that they be placed where they cannot commit crimes, and for so long a period as they would be dangerous to society. The only question would be, where?

The "criminal by contracted habit," as a rule, commits his first crime in youth, almost invariably against property, and through moral weakness, induced more by environment than by hereditary tendencies. These cases are liable to relapse, if their environments are unfavorable, or, if associated with hardened criminals. The "occasional criminal" commits crime on account of his physical and social environment, and does not relapse, if temptations are removed. The "criminal of passion," as a rule, commits a crime against the person, done either in anger or in defense of honor, usually not premeditated, but with a precise motive, and openly, and followed by remorse. These cases rarely relapse. Prof. Ferri says that "the true difference between the born and the occasional criminal is that, with the former, the external cause is less operative than the internal tendency, because this tendncy possesses, as it were, a centrifugal force, driving the individual to commit crime, whilst, for the occasional criminal, it is rather a case of feeble power of resistance against external causes to which most of the inducement to crime is due." And, again, he says: "With the born criminal it is, above all, the lack or the weakness of moral sense, which fails to withstand

crime, whereas, with the occasional criminal the moral sense is almost normal, but inability to realize beforehand the consequences of the act, causes him to yield to external influences."

In the management of youthful criminals we must recognize the fact that we have different types,—one class, however, shading almost imperceptibly into the other; and it is evident that the treatment should not be the same for each class. Furthermore, the *criminal* should be considered and not the crime, for *crime* is a symptom of a condition,—an act, a transgression of the laws, by an individual, who is a degenerate, either insane or a moral imbecile,—or who is impelled by social environments, or by habit, or by passion.

The "born criminal" we cannot hope to reform. This class, no matter what the crime, if it can be shown that they are born criminals, as indicated by their frequent relapses and defective moral sense, should be confined indefinitely and forever. They are unable to adapt themselves to their social environments, and shoud be removed. They should be kept separate from those who can be reformed, for there is no doubt that, although young, they will have a bad influence over other criminals. Much can be done in the way of reformation of the "criminal by contracted habit," and the "occasional criminal."

When a person is placed on trial, and all evidence, pro and con, has been given, the duties of judge and and jurors should cease, when the latter have rendered their decision as to the guilt of the accused. If the person has been found guilty, the verdict in all cases should be "to be confined until reformed." What good is accomplished by sending a prisoner up for thirty days, or to the penitentiary for three months, as is often done? The young man and the occasional criminal come in contact with the habitual criminal, and there can be no question as to the result. They are turned loose upon society more degraded, morally, more hardened, and more adept in crime, than when admitted; perhaps, to again fall into crime.

All transgressors against the law should be given *indeterminate* sentences; and, as far as possible, classified according to their moral responsibilities. Every one should be compelled to work, and receive instruc-

tion in branches of literature or rudiments of learning, and in ethics, philosophy, and physical culture, according to his requirements and natural ability. The duration of his confinement should depend on his moral character, and disposition to work. When the authorities of the institution, who must be competent judges, decide that any one is entitled to a release, such person could be given a parole, and required to report by letter to the authorities at specified intervals. Any violation of parole should, without trial, subject him to further incarceration. The Elmira Reformatory, in New York State, which was opened in 1876, has practically this system. What are the results? Eighty per cent. never relapse into crime, and the average time of detention is twenty-two months.

The question of unfixed or indeterminate sentences is thoroughly practical and scientifically correct, for adult, as well as for youthful and insane, criminals; for, as Villert says: "When the measure of punishment is fixed beforehand, the judge is like a doctor, who, after a superficial diagnosis, orders a draught for the patient, and names the day when he shall be sent out of the hospital, without regard to the state of his health at the time." For economic reasons, also, the indefinite sentence is preferable. In New York State it is estimated that the average detention of the inmates of the Reformatory, where there is an indeterminate sentence, is twenty-two months; whereas, for those committed to the penitentiary for the same crimes and for fixed periods, the average imprisonment is five years,—the former being an immense saving to the State.

A penal agricultural colony, for the detention of certain classes of young criminals, is one of the best methods for social defense, as well as a means for their reformation and change of environments. Outdoor labor tends to secure physical and moral health, and every degree of labor, from light to severe occupation, can be obtained. This method would be specially applicable to those who have committed their first offense and are not too defective, morally. It would avoid the bringing together of all classes of criminals, where, through contagion, many of the most promising ones

are bound to be made worse by association with the born and incorrigible criminal.

For some offenses, such as bodily injury, blows, threats, and slander, committed by criminals of passion, or occasional criminals, (the former of which are not criminals in the strict sense of the word,) there should be a reparation of damages by fines, deduction of wages, or forced labor. This reparation of damages should be made a penal substitute,—to obtain which it should be unnecessary to enter the civil courts.

As there is no distinct line of demarcation between sanity and insanity, so the type of some criminals merges into that of the insane madman. As Maudsley expresses it, "there is a borderland between crime and insanity, near one boundary of which we meet with something of madness, but more of sin, and near the other boundary of which something of sin, but more of madness. A just estimate of the moral responsibility of the unhappy people inhabiting this borderland will assuredly not be made until we get rid of the metaphysical measures of responsibility, and proceed by way of observation and induction to sound generalizations concerning the origin of the moral sentiments, the laws of their development, and the causes, course, and varieties of moral degeneracy."

In the class of criminal madmen, we would call special attentian to *paranoia*, which is defined by Prof. M. Allen Starr as "a chronic form of delusional insanity, characterized by fixed and systematized delusions, which dominate, but do not impair, the intellect." The majority of the doubtful cases of the criminal insane are paranoiacs. Guiteau is an example of this unfortunate class, whose legal murder is a blot upon science, as well as upon humanity.

We are of the opinion that the criminal insane should be confined in separate asylums, on account of the demoralization which this class exerts over the harmless insane; and, because being dangerous, they should be more securely confined; for, it is a fact that the ordinary insane hospital is not sufficiently secure for the confinement of many insane criminals. The management and discipline of the "criminal madman," furthermore, is necessarily different from that of the harmless insane. We believe, too, that the criminal

lunatic asylum is the place for those unfortunate degenerates who inhabit the "borderland" between crime and insanity. Whether sane or insane, if dangerous to society, social defense demands that they be confined. The criminal insane asylum will prevent the hue and cry which is raised whenever a criminal is "acquitted on the plea of insanity." There should be no acquittal;—if he is insane, or if he has no moral sense, no matter how slight the crime, and if he is dangerous to society, and he is, he should be confined until he has recovered, or is no longer dangerous, which, in many cases, would be for life. This class of cases needs caring for more than the harmless insane.

There is another class of evil doers, who are no more responsible for their condition than they are for the color of their hair, or shape of their noses, or than the lunatic is responsible for his insanity. I refer to the dipsomaniac or the periodical drinker. This condition is an inherited disease,—a neurosis. The father, or mother, or some ancestor, was neurotic, or insane, or a drunkard. It is his inheritance, his birth-right. If he had not been an inebriate he might have been insane, or a criminal. If he had been insane, we would confine him in a lunatic asylum; if a criminal, he would be sent to the penitentiary. But if, perchance, inebriety is his inheritance, we do nothing either to protect him or society, unless he infringes upon the majesty of the law, and then he is treated as any other criminal. There is great need of legislation along this line. The physician, or family, should be enabled to control the cases legally. Moral, social, and religious, influences, and detention, where they cannot obtain alcohol, do more to cure these cases than medicine. The State, in order to care for chronic alcoholics, might tax the saloons enough above the present rate of taxation. There is need, also, to provide, by legislative enactment, for the care and supervision of the children of criminal and drunken parents, as their environment from infancy is such that when they have reached maturity they are too frequently hardened criminals. There is no doubt, also, that the publication of the details of murder by the press is, by suggestion, a great source of crime, and should be restricted by law.

The points which I wish to emphasize cannot be bet-

ter expressed than in the words of Mr. Arthur MacDonald, in his work on "Criminology:" "*First*—It is detrimental, financially, as well as socially and morally, to release prisoners when there is a probability of their returning to crime; for, in this case, the convict is less expensive than the ex-convict.

"*Second*—The determinate sentence permits many prisoners to be released, who are morally certain to return to crime. The indeterminate sentence is the best method of affording the prisoner an opportunity to reform, without exposing society to unnecessary dangers.

"*Third*—The ground for the imprisonment of the criminal is, first of all, *because he is dangerous to society*. This principle avoids the uncertainty that may rest upon the decision as to the degree of freedom; for, upon the last principle some of the most brutal crimes would receive a light punishment."

Whatever be the remedy for crime, the causes must first be studied; and, let us, as physicians, put our shoulders to the wheel, and by virtue of our knowledge of the laws of heredity, and by virtue of our studies of the physical and psychological state of the criminal, and by virtue of our knowledge of the degrees of responsibility, obtain just and scientific laws for the management and betterment of these unfortunate people. Let us study these causes, and the prevention of crime, in a philosophical manner, that the destiny of future generations may be favorably influenced.

DISCUSSION.

Dr. R. M. Cunningham—There is, perhaps, no more important subject than the one introduced by this paper. We must not forget the fact that this Association is the State Board of Health, and that it is our duty to recommend legislation. Were it not for the discouragement we have met with in the last two Legislatures, I feel that this subject should be taken up by the Association and something definite formulated thereon. The public has no more idea what crime is than it has of the abstract principles of creation. The general public holds that crime is the outgrowth of old Adam, and that the criminal could wholly control himself. The popular idea is that crime is sin, pure and simple; that

it is wholly voluntary, and can be controlled by the individual himself,—hence it is that the object of criminal administration is to punish. The doctor made a statement that "the destiny of man was fixed by his ancestry." That is a very serious thing, and, if true, man and woman can assume no greater responsibility than when they become parents. I believe that if people would apply the same sense to the cultivation of children that the planter applies to the raising of crops and of stock, the time would come when insanity, imbecility and idiocy would be things of the past. If the conception of the doctor's paper is right, then, I say, that the execution of law, as it is done today, is a disgrace. The primary principle in the execution of law, as it is now found, is more for the purpose of enriching the counties and State, and filling the pockets of officers with fees, than to teach wholesome lessons and put a stop to crime.

You cannot reach the lawmakers on this great question, and we will have to begin at the cradle. It should be taught to the children in the public schools. I have long since believed that nobody deserves any particular credit for being honest. It is a heritage which he must obey. Ancestors and environments fix our destinies. I thank the doctor for his valuable paper.

Dr. H. A. Moody.—In connection with this subject, I desire to raise a question that has engaged my attention for some time. The queston is this: Have we a right to punish a man for a crime which he inherited from his parents? It is right for us to consider what is just, and what is unjust. I have seen some practical illustrations along this line. I know a good woman in the city of Boston, who has made a thorough study of sociology, and the result of her study is that she thinks more of a criminal than of an honest man. There is danger in our acknowledging that a man is not responsible for the crime he commits, and, although there is an essence of truth in the statement, yet, if carried out, to its logical conclusion, it would lead to mischief. Think for a moment, what would have been Guiteau's destiny if the question of heredity had been taken into consideration? He would never have died as he did, but would have been confined in some flower-laden cell,

where his sympathizers could have daily visited him. I think it well to look at both sides of the question before forming our opinions.

Dr. T. D. Parke.—I only want to thank Dr. Sommerville for this excellent paper, and to say that we ought to be educated to the proper conception of criminals and their treatment. What a man thinks, and what he does, is due to his ancestry, and to his environment. If a criminal cannot be cured, then, keep him in confinement. So long as our criminal processes are radically wrong, and so long as our officials are making money out of them, just so long will our coal mines be filled.

THE PRONATED FOOT.

By Michael Hoke, M. D., Atlanta, Ga.

From a mechanical point of view, the foot is the most splendid piece of anatomical structure in the human body, in spite of the fact that the dress customs of civilization have shown little regard for its needs, if its strength is to be considered a desirable thing. The relation of its bones, its ligamentous braces, its muscular suspension, together, make up a series of flexible, elastic, arches, which, for precision of design, can find no counterpart in nature.

Its function is to support the body weight, and, as a lever, to make locomotion a movement of poise, activity, and grace, free from all pain.

Its attitudes, its ranges of motion, controlled and balanced by its muscles and the muscles of the leg, the fashion of its covering, the manner of its use, are all factors in the preservation of its integrity, as an efficient and lastingly useful piece of mechanism.

Like all complicated pieces of mechanism, its com-

ponent parts must be in a normal condition, the muscular power must be sufficient, and it must be properly used, if it is to be serviceable.

If any of these conditions is lacking, the foot is no longer effective as a lever, its spring is lost, the muscles which control its balance act in a faulty manner, and no longer distribute the body weight so that the foot, as a unit, bears it; the attitude of passive support is assumed; it yields, the foot is weakened, pain, awkwardness, and disability follow.

The type of non-deformed, but structurally weakened, feet are many, indeed, each foot has its own structural individuality, thus, nearly all cases falling under a type of defect, present individual problems for solution. But each type, having its own definite, dynamical, forces which produce the defect, has its own general principles, to be followed as a basis for treatment intended to correct the defect and relieve the symptoms.

I have elected to speak of the pronated foot.

It is the most common type of the weakened, non-deformed, foot,—producing pain that exists without change in the bones of the tarsus and metatarsus. The pronating force is active in the production of flat-foot, difficult there to overcome, hence of interest. It presents, too, one of the most interesting problems in that part of orthopedic surgery concerned with the application of apparatus for the correction of a faulty anatomical position, attended by disability. I have selected it, also, because this vicious position plays an important and sometimes dramatic part in the relief of symptoms in feet, ankles, knees, and hips that, having passed through a severe acute or chronic arthritis of any nature, are painful, not from disease still existent, but from the fact that the relation of the bones forming the joints has been so altered that the leg transmits the body weight, and the feet sustain it, in a manner productive of joint strain.

I shall confine myself as briefly and strictly as possible to those anatomical, dynamical, and mechanical principles concerned in permitting and correcting the trouble.

The clinical importance will be shown by the report of a few typical cases. It is necessary, first, to picture the best type of foot. The position of strength is that

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position in which the foot acts most effectively as a lever; the position of weakness, whether unconsciously assumed or forced on the foot by some of the many impositions possible, is that position in which the foot, as an anatomical lever, is placed at a disadvantage to do its work. All of these attitudes are simply expressions of how the body weight is borne.

Von Myers' rule formulates the accepted ideas as to the proper relation in position of the foot to the leg: "The line of the crest of the tibia, if prolonged downward, should pass over the dorsum of the foot to the cleft between the second and third toes, the inner border of the great toe, the inner malleolus and the inner condyle of the femur being in the same plane."

This agrees with the best type of nature.

The foot of an infant shows unimpaired muscular power in the movement of all of the toes. The great toe can be voluntarily adducted, the fifth abducted, all can be markedly flexed. There is a space between the great and second toes. The toes are straight. The infant adducts frequently the great toe, demonstrating great freedom of its motion. The line of the extremities of the toes forms a curve, with the greatest point of convexity at the end of the second toe. The line of the heads of the metatarsals present the same curve. The line of the inner edge of the foot is apparently straight. Though small, it is a perfect miniature of the strong foot, its toes straight, its motion free. Young children, in beginning to walk, always place the feet with their axes parallel, or with a slight toeing in.

The inner edge of the adult feet that have not worn shoes, nearly always appears straight; the great metatarsal bones are comparatively greatly developed; the prehensile strength increasing with age up to a certain limit.

Barbaric models and Egyptian sculptures, types of the barefooted and sandal-wearing people, are characterized by the parallel relation of the axes of the feet in the standing position, by the straight inner edge of the foot and straight toes. The early Indian, Burmese, and Egyptian art, show this to be true, and the classical type of sculptures represent the line of the inner edge of the foot as always straight with an extremely small angle of divergence of the axes of the feet in the

standing position. This is true of the Greek and Roman art.

Individuals who have never worn shoes, walk with the feet directed almost straight in front. The moccasin-wearing and barefooted races of to-day, with whom foot activity plays an important part in obtaining a livelihood, either slightly toe in or walk straight. The muscles of the front part of the foot are strongly developed. If the gait of an athlete be observed, it is seen that the feet are advanced in a straight line, or with a very slight angle of divergence. It is interesting here to note that the talipes equinus deformity, with the front part of the food adducted, is the strong type. Individuals possessing this deformity move actively, though awkwardly. Contrast this with the slow, halting, rolling, weak gait of the valgus type of deformity, with the foot abducted. As shown, then, by the bare-footed and sandal-wearing races of antiquity, and, to-day, by those who are active, with strong muscles in the legs and intact feet, the position of strength is with the feet parallel, that is, with the front part of the foot adducted, the inner edge of the foot straight, apparently with great prehensile strength. I wish you to bear this in mind; it has its clinical significance, and is to be contrasted with the weakened position to be described. The reasons that this supinated position is the position of strength, are as follows:

The foot has two antero-posterior arches, an inner and an outer one. They are distinctly opposite in character of construction, and hence in function. The outer one is composed practically of only two bones, the os calcis and cuboid, closely bound to one another, with little play of motion between them at their articulation. The metatarsal of the fifth enters into the formation of this arch with the foot in the non-weight bearing position, but must be excluded from it in the weight-bearing position, for then throughout its whole length it rests upon the ground. This arch is short, compactly built, and always rigid. The inner arch, twice as long, with five bones entering into its formation, os calcis, astragalus, scaphoid, cuneiform, and first matatarsal, with several muscles attached to it, flexible, possessing a wide range of motion compared to the outer, is constructed not for passive weight bear-

ing, but to sustain a great and sudden shock, without jar, to yield slightly, and to rebound to its former position in the final spring given to the completion of the step. It is this arch, and its attached muscles, that make the gait active and springy. The outer arch is built, then, to stand passive weight-bearing all the time, as in standing, and very seldom does it ever yield. The inner arch should bear the weight only momentarily in the completion of the step in walking, and quickly shift the body weight outwards, to be borne again by the other arch as soon as the foot is placed on the ground. This can be demonstrated: Make yourself conscious of pressure on the sole of the foot in standing, with the foot in the supinated position, axes parallel, front part of the foot adducted. You feel the pressure under the heel and outer portion of the foot, and beneath the heads of the fifth, fourth, third, and, to a lesser extent, the second metatarsal. You are conscious, in this position, of very little pressure under the head of the great metatarsal. It is not felt there to any extent until the heel is raised in taking a step. More convincing it is, to place an individual on a glass table in the standing position, with the foot in the strong position, supinated as before described, the axes parallel, so that Von Meyer's line may be drawn. Then the dead white area of pressure, if you look at the under surface of the foot through the glass, is seen to extend over the heel, and from the fifth metatarsal into the second, as above mentioned. This is the strong position, for when it is assumed, the body weight is borne by the strong, inflexible, unyielding, outer arch, the inner arch bearing very little of it.

When, on the contrary, the weight is borne on the inner arch, sufficiently to tire out the tibiales, flexors, and adductors of the great toe, it yields from this passive support to which it is not adapted in structure, its ligaments become stretched, and the excessively pronated foot, with its train of symptoms and lameness, results.

This vicious position is the attitude in which, in the habitual standing position, the foot rolls over inward, instead of being supinated; the inner edge of the foot shows a reverse curve, with its convexity inward, instead of a straight line or slight curve, with its con-

vexity outward; the front part of the foot is abducted, instead of being adducted, and the outer edge of the foot rolls up, the front part of the foot being rotated inward, as well as abducted. The line drawn through the crest of the tibia, and over the dorsum of the foot, representing the direction of action of the body weight, passes off the inner arch of the foot at the atragalo-scaphoid articulation, instead of at the cleft between the second and third toes. The dead white area of pressure seen from beneath the sole of the foot through the glass plate, shifts inward until the most decided points of pressure are beneath the heel, and the head of the great metatarsal. This is the result of the body weight being supported by the weak inner arch, applied at its weakest portion, the astragalo-scaphoid articulation. The inner arch is not constructed for this kind of strain, and yields, with pain. Always, even in strong feet, in standing and walking, there is a slight downward yielding of the inner arch, which may be called physiological pronation. Its physiological limits can not be determined in degrees, for it varies in the two feet of an individual, still more so in different individuals. The pronation, with symptoms, is the same motion carried further, until it produces strain, the same in kind, but excessive in degree.

Lovett has analyzed the movement of the bones in the pronated attitude by a study of 41 X-ray plates of painful pronated feet. Results of his studies may be summed up as follows:

(1) The appearance of the feet is as represented in the photograph.

(2) The foot, as a whole, rotates beneath the astragalus into the position of valgus.

(3) The astragalus is rotated inward on a vertical axis, so that its head moves inward and backward, its body outward and forward. There is at the same time plantar flexion of the astragalus, by which its head sinks into the sole. This is the key-note of the position.

(4) There is some outward movement of the cuboid.

(5) The front part of the foot is abducted, moving

outward, the tendency being for the foot to break open outwardly, (if I may use the term) at the astragalo-scaphoid articulation, as the hinge of motion.

(6) Anterior to the astragalo-scaphoid articulation there is no change in the relation of the bones, the whole front part of the foot moving *en masse*.

(7) The os calcis rotates in a valgus position.

The detailed mechanical and anatomical explanation of the strong position, and of excessive pronation, is best seen by examination of a skeleton. Consider the body weight to be a force (*W. Fig. 1*), acting downward in the direction of the axis of the shaft of the tibia; it is opposed by an equal force acting upward in the direction of the shaft of the tibia. The same is true with the foot in regard to the direction of the body weight forces acting through the axes of the small bones of the tarsus, and along the shafts of the metatarsal bones. The strength or weakness of the foot is determined by the movement permitted the astragalus.

The astragalus has no muscular attachments, it serves simply to transmit the force of the body weight from the end of the tibia to the foot, splitting it up into a number of components, some passing behind, some forward.

In the strong position, the supinated one above described, the astragalus, as shown by Golobiewski, is tilted a little downward, at its outer border, so that most of the body weight is transmitted through it ,directly to the os calcis, thus the force of the body weight passes backward through the tuberosity of the calcis to the ground, and from the calcis in front to the cuboid, and from thence to the fifth and fourth metatarsal, the second and third metatarsal receiving their share of the weight through the head of the calcis, the outer end of the scaphoid, the middle cuneiform, and thence to their own shafts. Thus, very little weight is left, in the standing position, to be transmitted to the inner arch. Note here that there is no plantar flexion or inward rotation of the astragalus, as seen in the pronated foot, and that from the relation of the bones in the inner arch to one another and to the astragalus, it is not a difficult thing for the flexors of the great toe, the small toes, and the tibiales, to bear what weight may be transmitted to the internal arch in this

strong position, the result of that little weight being the physiological degree of pronation recognized as normal. If, on the contrary, the front part of the foot is by habit held in the abducted position, so that Meyer's line (*see illustration No. 6, the arrow*), passes off the inner arch at the astragalo-scaphoid point, the body weight being applied there, the tibiales and the other muscles attached to the inner arch become tired, and the astragalus is allowed to rotate inwards. Then, most of the body weight is applied to the inner arch. This is the pronating force. The astragalus splits it up into two compartments, one of these (Y *Fig. 1*), acts downward, and falls chiefly upon the inner half of the os calcis and the suscentaculum tali. The only direct opposition it has is from the tendons of the muscle, which pass beneath the suscentaculum tali, use it as a fulcrum for their action, lifting up the suscentaculum tali and preventing the calcis from rotating in a valgus position, so long as the tone of these muscles is normal. If these muscles are strong and the foot is used in the mechanically strong attitude, supination, (*Fig. 5*), they prevent pronation at this point from being greater than the physiological degree; but, conversely, if from the assumption of the disadvantageous position, with the greater part of the body weight thrown on the inner arch, Y is so greatly increased that the muscles are not strong enough to oppose it; they play out, the weight falls upon the ligaments at this point, then pain begins there, and that part breaks down.

The other component x, acts downward, forward, and inward, in the direction of the axis of the astragalus, from behind, forward, and is applied at the inner end of the medio-tarsal joint at the astragalo-scaphoid articulation anterior to the point of support of the astragalus by the os calcis beneath. This, then, must be apposed by structures anterior to the end of the astragalus. The tendency of this force is to crush arch A B C D E F downward, forward, and inward, at D; to convert arch A′ B′ C′ D′ F′ into A″ B″ C″ D″ F″; to roll the foot inward, as shown in the photograph; to abduct the front part of the foot, and at the same time to rotate A B C D in a valgus position, assisted by the peroneus longus,

which, attached to the base of the great metatarsal, pulls the forward column of the arch outward at B. This force, then, produces all of the clinical signs of the pronated position, except the valgus rotation of the os calcis. Acting forward, inward, and downward, this pronating force must be opposed by an equal force acting upward, backward, and outward at D. It is seen that flexion of A B increases and strengthens this arch; also, that adduction strengthens arch A′ B′ C′ D′ E′. This is accomplished by the flexor brevis and longus pollicis, and by the adductor pollicis. Much more flexion than adduction is possible in the normal foot, consequently, to permit no more than the physiological limit of pronation, the foot must depend chiefly upon the flexors of the great and small toes. The reason why flexion of the great metatarsal in the supinated position overcomes the inward yielding at D, thus preventing excessive pronation, is due to certain anatomical bony land-marks, of whose importance the anatomical books do not speak; to the relative position of the small tuberosity on the posterior end of the great metatarsal; to the tuberosity of the internal cuneiform, its whole lower border, and this tuberosity to that of the scaphoid, as represented by the shaded areas. The tuberosity of the great metatarsal faces downward, the tuberous border of the internal cuneiform faces downward at its articulation, with the great metatarsal then inclined upward and inward. The tuberosity of the scaphoid faces inward, so that, when the great metatarsal is flexed by its muscles, attached to A, the thrust of its little tuberosity by the time its effect is transmitted through the internal cuneiform and scaphoid against the astragalus is not to lift the latter upward, but upward, backward, and outward, in direct opposition to the direction of the pronating forces x. Thus, by this relation, flexion of the great metatarsal accomplished what, without this relation of the tuberosities, would necessitate the position A′ B′, to be changed to A″ and B″. It is thus seen how the prehensile power of the great toe, meaning the power of the flexor longus and brevis and the adductor pollicis, assisted by the tibial muscles, prevents the pronated position, sustains the body weight temporarily, but must give out, if subjected to constant strain. In the

majority of cases presenting themselves for treatment on account of pain, the weak attitude, with the front part of the foot abducted, was first assumed unconsciously, or forced upon the foot, by using bad shoes. From continuous use of the foot in this position, the prehensile muscle, acting at a disadvantage, the inner arch bearing the body weight, gave way with ligamentous stretching. In those cases secondary to acute or chronic disease in the ankle, knee, and hip, the abducted attitude was assumed because that is the position in which one may walk with greatest comfort, with disease of the ankle, knee, and hip. The reason of this is: The body weight falls entirely on the heel, and the patient unconsciously shifts it there by the attitude, to keep from bending the diseased ankle, knee, or hip. Later, the attitude becomes permanent, partly from habit and partly form a changed relation of the bones forming the joints mentioned. The production of joint strain is due to the unstable foot basis in the pronated attitude. To present the clinical side of the condition, which may, perhaps, alone be interesting to you, I submit a report of the folowing cases. The details of these cases will present the symptoms, physical findings, method of examination, and treatment:

Mrs. B.—Several years ago increased rapidly in weight, gaining about 40 pounds in nine months; took very little exercise; led an apathetic life. The first thing noticed was great weariness from little exertion, then both feet began to hurt, the pain being located at the inner and outer sides of the ankle, at the attachment of the posterior tibial to the scaphoid, and along the course of the tendon of the peroneus longus, as it winds across the outer surface of the os calcis. At night the knees and outer portion of the calf of the leg ached a great deal; this continued for about a year; she was able to get around, of course. It was thought that she had rheumatic gout. Both feet were pronated, the toes turned out, the ankle rolled in, Myer's line passed off the internal arch at the astragalo-scaphoid articulation; dorsal and plantar flexion were possible to a normal limit; voluntary adduction was limited, the effort feeble; there was no flattening of the arch; the peroneus longus was in a state of spasm, adduction pro-

ducing pain; a foot plate was applied, the highest lift of the plate being carried forward to the inner cuneiform. The tarsal pain was instantly relieved. The knee pain and aching in the leg disappeared in about a month after the application and constant use of the foot plate. The relation of the pronated foot to the pain in the knee and calf of the leg is definite, clinically, and can be anatomically and mechanically explained with perfect accuracy, but its demonstration is complicated and tedious, hence, I simply refer to it. She will have to wear the plates all the time. This case and the one following illustrate the most common type of the trouble.

Case 2.—Mrs. G.—Complained that she could not walk further than a few blocks without giving out; in church, she had to stand first on one foot, then on the other; had pain at the instep in both feet and backache; there was no knee pain; the feet were pronated, but perfectly mobile; the ranges of motion, both voluntary and passive, were normal; there was no spasm; plates were applied; she can now, by using the foot plates, walk four or five miles with only that degree of weariness to be expected from this amount of exercise by a woman. She has to wear the plates only when walking a great deal. Here, the interesting point was the relief of the pain in the back; its explanation is anatomical and mechanical, too, but can only be demonstrated by a complicated examination of the relation of the angles of the medio-tarsal ankle, knee, and hip joint; it may be passed over for the sake of brevity by the statement that the position of pronation so acts that the back muscles are tired out to the point of aching with comparatively little exertion.

Case 3.—Mr. S.—The photograph was taken of this case; his business kept him on his feet all day. At the time he was seen there was very great pain in the instep, at both sides and behind the ankle; in the heel, and at the attachment of the plantar fascia, and of the tendo-Achilles. The ankle was puffed, behind, there was a good deal of pain across the ball of the foot, and just external to the attachment of the patella tendon; the patient walked with great pain, without rising upon the toes; with knees flexed, feet wide apart,

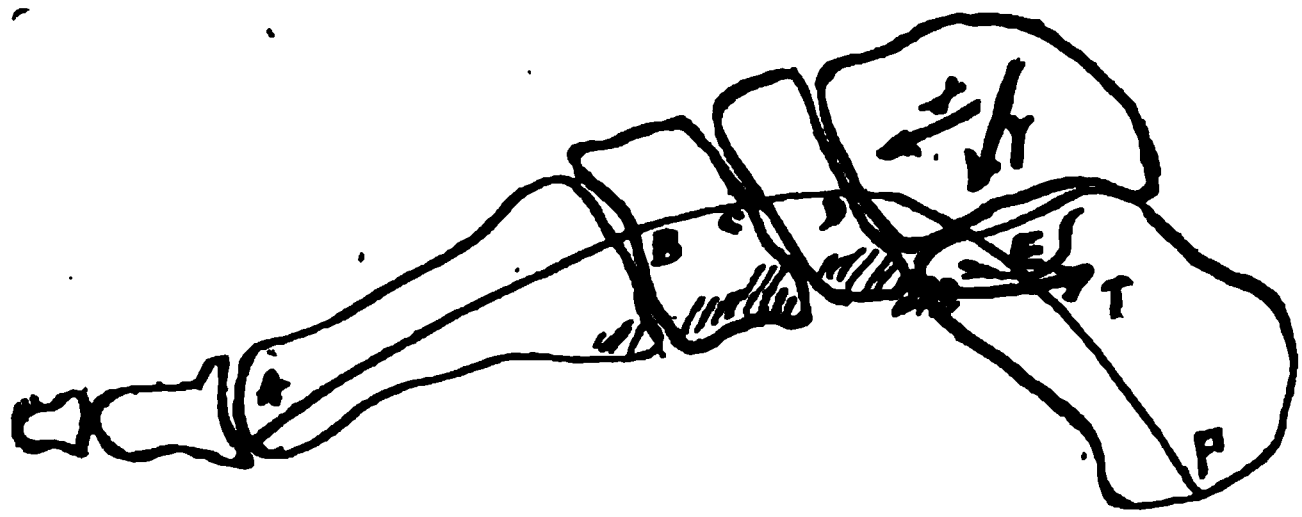

Fig. 1. Right foot, inner longitudinal arch. X and Y—components of body weight falling on inner arch tending to pronate the foot; Y is resisted by tendons (arrow) passing beneath suscentaculum tali, E; Y produces valgus rotation of os calcis; X, the abduction of the front part of the foot.

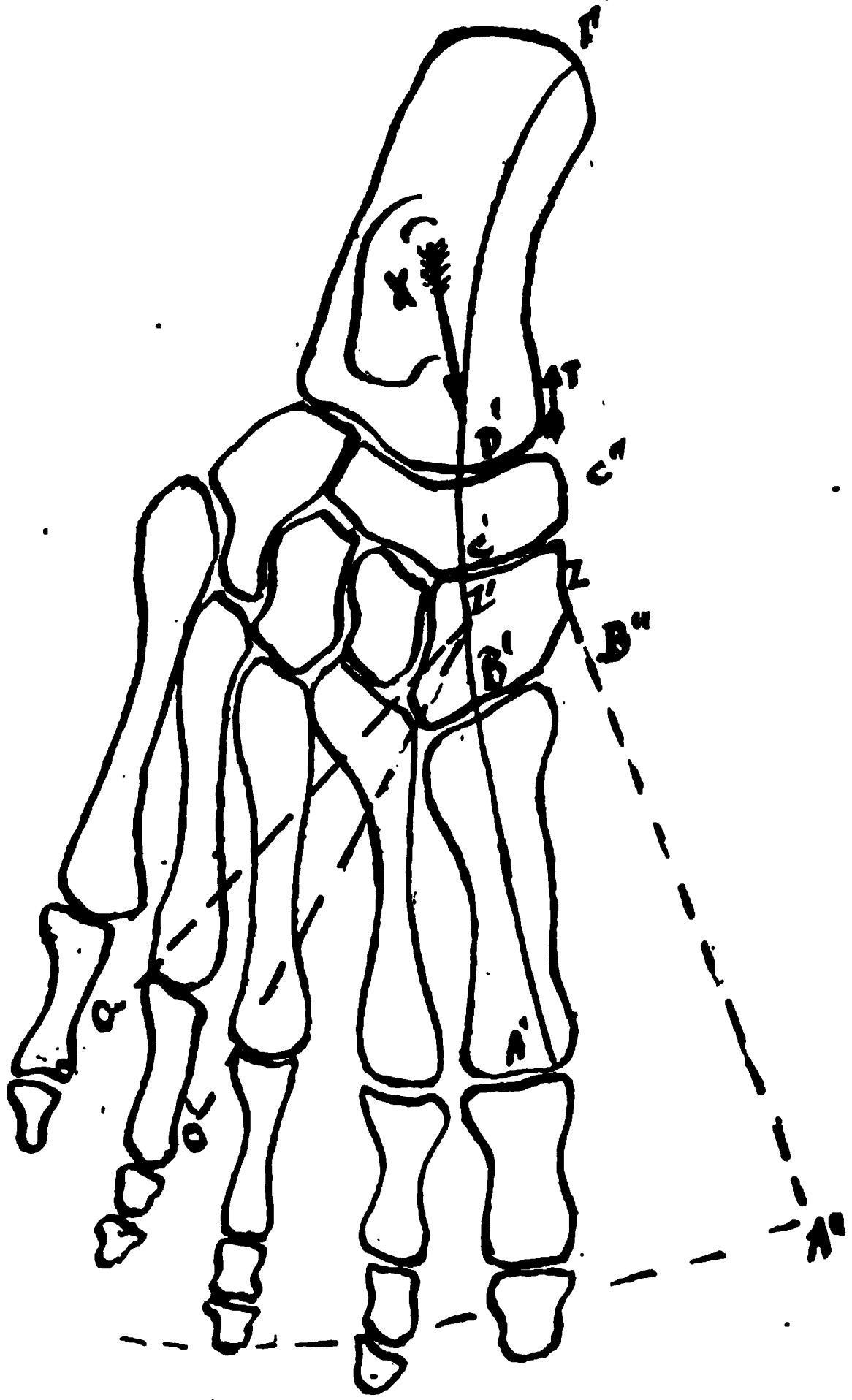

Fig. 2. Skeleton of foot viewed from above. X tends to reverse arch A′ B′ C′ D′ F′ making it A‴ B‴ C‴ D‴ F‴ seen in Fig. 3, or the character of this arch in the pronated foot.

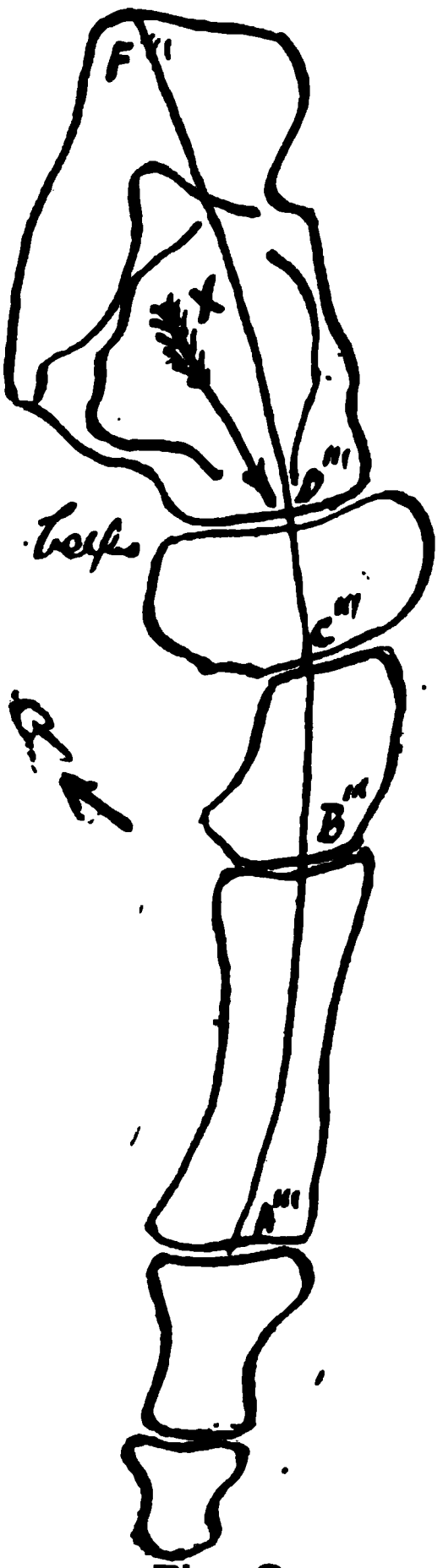

Fig. 3.

Inner row of bones of pronated foot. Note that A''' etc. is the reverse of A' etc.

Fig. 5.

Supinated or strong position.

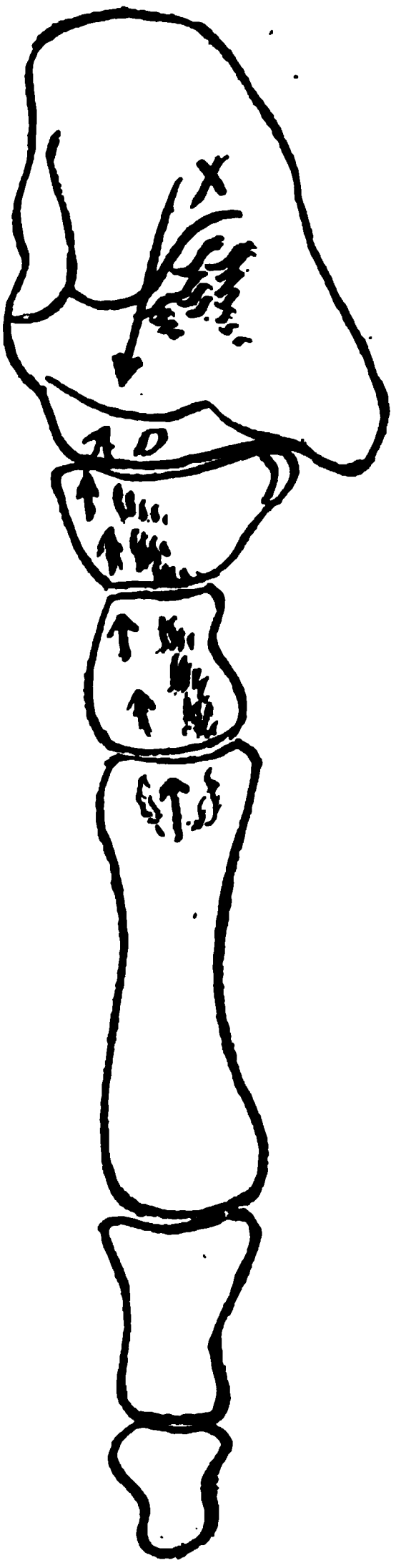

Fig. 4.

Under surface of inner row of bones, right foot. Shaded lines= tuberosities. Small arrows show how flexion of the great metatarsal, when its impulse along the tuberosities reaches D, is equivalent to a force acting directly opposite the line of action of X.

Fig. 6.

CASE 3.—Note the prominence of A, the abduction of the front part of the foot. The arrow indicates the line of action of the body weight.

Fig. 7.

The steel foot plate made on a carved Plaster of Paris cast of the foot is riveted between two pieces of leather. it is slipped in the shoe like an insole.

seeking a broad base of support, like the gait of a feeble old man; all the motions of the feet were painful; dorsal flexion was limited by the spasm of the soleus; voluntary adduction was almost impossible; the tibial muscles being almost paralyzed by the strain they had borne; there was spasm of the peroneus longus, which, with no opposition on the part of the tibial muscles, held the front part of the foot in abduction. This represents the severest type of what one might term, acute pronated foot, approaching flat foot in its anatomical defects, with all the symptoms of that condition. Plates were applied, all the muscles of the feet, leg and thigh had to be gradually reëducated to take up their proportionate share in sustaining and propelling the body; he was put to bed; given massage, electricity, and exercised every hour and a half, going back to bed immediately after the exercises, in order to relieve the foot of passive weight bearing; the feet were put through the normal motions twice daily, recovery was, necessarily, gradual. After two months' treatment he was able to return to his business; at present the right foot is perfectly sound; he does not wear a plate in the right shoe; there is no pain in the knees; the left foot is a little painful where the peroneal tendon winds around the cuboid if the plate is not worn in the left shoe, but with the plate in the left shoe there is no pain; this left peroneus longus is still somewhat spastic; the spasm will dsappear when the voluntary adduction becomes a little stronger. His manner of walking now shows nothing wrong, except that it is not quite as active as it should be. In a little while he will regain entirely his normal strength and activity.

Case 4.—The effect of the pronated foot in this case was quite dramatic; the patient gave a history of having had a sever boil on the right patella in 1889; this followed an injury; the history of this suggested a suppurating pre-patellar bursitis; it discharged for about six weeks; examination of the site of this abscess did not suggest that there was originally any bone disease. The knee, at the time of the trouble, was bandaged, a posterior splint, extending from the buttock to the ankle, was applied. It was thought that there was a connection between the abscess, the patel-

la, and the joint. After the place had healed, the joint was immobilized for about eight weeks; the pain ceased after the healing, and the muscles of the leg had atrophied from disuse. At the end of this period, fourteen weeks after the beginning of the trouble, he started to work, clerking in a store, standing on the leg all day; the pain in the knee joint immediately returned, it was the same, but from a different cause now; though the attention of the patient, and that of the attending physician, was centered upon the idea that there was still a disease in the knee joint. He had begun to use the leg, with the foot in the pronated position, and this was the cause of the knee pain; there was some pain, too, though little, in the ankle. He was advised not to use the leg much, and since 1889, had walked with a crutch and cane. He presented himself for treatment last October; the motions of the knee, hip, and ankle, were perfectly normal; the leg was atrophied and flabby, the foot was pronated. This was the whole trouble; a foot splint was applied to properly support the foot; the knee and ankle were bandaged with flannel bandages, to give some support to them; the leg was massaged; the cane was at once discarded; he was put on exercise and tonics, the exercise being gradually increased. In six weeks, the crutch also was discarded; the patient walked with perfect comfort, and in a natural gait.

MORTALITY IN OUR PRISON POPULATION.

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Member of the Medical Association of the State of Alabama.
Ex-State Physician-Inspector of Convicts.

In considering this subject I shall eliminate any question of mortality occurring in our jails. Also the bad physical condition of many of the convicts when received into our penitentiaries, which is attributable to confinement in our jails.

I do this, because a little study of the subject convinces me that our penitentiaries discharge many more convicts in bad physical condition, directly attributable to the rigors of penal servitude, and who die therefrom in the outside world, than those who die in jails, and those received in bad physical condition from jails, attributable to confinement therein. Hence, I will consider only the mortality of our penitentiaries proper.

Our convicts are divided into two classes, to-wit:

First, State convicts, or those who have been convicted of graver offenses, termed felonies, and who are sentenced to hard labor for the State.

Second, county convicts, or those who are convicted of minor offenses, termed misdemeanors, and who are sentenced to hard labor for the different counties in which they are convicted.

The great bulk of our convicts, both State and county, are hired to coal mining contractors, chiefly in Jefferson county. It is estimated that about two-thirds of all the convicts, both State and county, are kept in two places in said county of Jefferson.

In the discussion of this subject, I submit, in the first place, that the death-rate in our prison population is large—excessive—and beyond the limits that ought to be tolerated by a great and civilized State, more than eighty years old, and occupying the position that Alabama does.

We can gain an idea of the enormity of our prison death-rate only by a comparison with the death-rate in the State at large, and with the death-rate in the penal institutions of other States.

Of course, comparison with the average death-rate among the people of the State at large is not altogether fair, because the conditions are not the same. Still, it serves to give an idea, and, it may be, one more nearly correct than might at first appear to be the case. For, it is a fact that all our convicts are *adults*, or, rather, oven ten years of age; whereas, in the outside world, the deaths among infants and children *under ten years of age* constitute *one-third* of the entire mortality.

It is also a fact that the great bulk of our convicts are negroes, and that the death-rate among negroes, under similar conditions with white people, is nearly always greater than among the latter.

The reports of our State Board of Health show this to be true here in Alabama, and we should bear it in mind in the consideration of this subject.

I think it can be safely stated that the death-rate at large in this State is less than two per cent—perhaps not more than 1.8 per cent., or eighteen per thousand per annum. The rate among the white people is some less, and that among the negroes is some greater—this, I think, is about the average.

The death-rate among our State convicts for the past ten years (from 1890 to 1900) has been 5.6 per cent, or fifty-six per one thousand—a rate more than *three times as great as in* the State at large.

And for twenty-five years prior to 1890 it was, approximately, 8.8 per cent. or eighty-eight per thousand —a rate about *five times as great as* in the State at large.

These figures, among adults, appear appalling when we think of a rate of only eighteen per thousand in the State at large, including infants, and children under ten years of age.

But, the Physician-Inspector of Convicts in his last bi-ennial report, 1898 to 1900, seems to think the situation is growing better when he points out that "The average annual death rate for the past two years for State convicts has been 4 2-5 per cent." (forty-four per thousand), and that "The death rate for the two years ending August 31st, 1898 was 4 4-5 per cent." (forty-eight per thousand), which is lower than for any other four years. But it should be borne in mind that during the last four years, when the rate was smallest, there were pardoned and paroled 260 *more* convicts than in the preceding four years.

The Physician-Inspector says that tuberculosis caused nearly one-half of all deaths among State convicts, and that this number would have been larger but for the fact that upon his recommendation the Governor released a number of sick convicts, a majority of whom were consumptives.

So, then, to my mind, it is questionable if much, or any, real improvement in our prison death-rate has taken place.

Who can say how many of the 260 convicts released in the last four years (1896 to 1900) *in excess* of the number released in the preceding four years (1892 to

1896), would have died in prison if they had remained? There can be no question that the death-rate would, in that case, have been larger than it was, for the Physician-Inspector says that a number of those released were sick, and with consumption.

Indeed, it is a fact that there were released during the last *four* years (embraced in the Convict Reports from 1896 to 1900) 498 State convicts by pardon and parole, whereas, during the *sixteen* years preceding (from 1896 back to 1880) only 481 were so released.

Of course, we can understand that the death-rate in our prisons can be made very small, if only enough sick and feeble convicts are pardoned or paroled before they have time to die in prison. This is really no actual improvement, for many of them die soon after being discharged, from disease contracted while in prison.

The death-rate among our county convicts is more distressing than that among our State convicts. For the past ten years (from 1890 to 1900) the average annual death-rate of county convicts has been eight per cent per annum, or eighty per thousand, an annual rate of twenty-four per thousand, *greater* than the death-rate among State convicts, and a rate nearly *five times* greater than in the State at large.

All these figures include deaths from violence, as well as from disease, because, such deaths go to make up the general death-rate in the State at large.

The main cause of this excessive death-rate among county convicts, over the very large death-rate among State convicts, is due to the fact that the State, in leasing its convicts, does not assign to the contractors men who, when received from the jails, are too sick or feeble to do a fair day's work, but employs such men upon its farms, or in its cotton mill; or supports them, if unfit for any kind of work, in the penitentiary at Wetumpka, whereas, the different counties, having no such resources, hire *all* of their convicts, regardless of their physical condition, to contractors—chiefly to coal mining contractors, resulting in the increased death-rate I have pointed out.

In speaking of this large rate of mortality in our penitentiaries I am reminded of Dr. J. B. Gaston's famous words on the subject, nearly twenty years ago.

He says: "They were *sentenced* to hard labor in the penitentiary and they have been *put to death.*"

I would that I could arouse in the minds of all who may hear or read this paper a small portion of the interest the words of Dr. Gaston, just quoted, stirred up in the people of Alabama at that time, for, in all earnestness, I stand here to-day and tell you that, perhaps in a modified degree, we are doing now just what he complained of then.

The State of Alabama is not treating its convicts with that degree of justice and humanity we have a right to expect from so grand a commonwealth.

But, if our prison death-rate is exorbitant when compared with the death rate in the State at large, it is made to appear only more appalling when we compare it with the death-rate in the penitentiaries of some other States, which I do not believe are any more intelligent, or advanced in civilization, than we are. For instance, the mortality rate in the State penitentiaries in Texas for 1898 to 1900, was thirty per thousand, while ours was forty-four per thousand. In the penitentiaries in California, from 1898 to 1900, the rate was twenty-two per thousand, or *less than half of our lowest rate.* In the Colorado penitentiaries the death rate for 1898 to 1900 was only ten per thousand, or less than *one-fourth* of our lowest rate. In the three penitentiaries in the State of New York—Auburn, Clinton and Sing-Sing, in 1899, the rate was from two-thirds of one per cent. to one per cent., while in Alabama it was four and two-fifths per cent or about *five times as great.* In Florida the rate is less than our average, and as low as our lowest. In Mississippi the rate is about the same as ours. In Louisiana the rate is fearful—a good deal larger than ours—but, as if ashamed of themselves, the people of that State incorporated a provision in their new State Constitution, adopted in 1898, that upon the expiration of existing contracts their convicts should not again be leased. In Tennessee, the death-rate is less than twenty per thousand for the period of 1898 to 1900. In Georgia, a State similar to our own, with only the waters of the Chattahoochee between, and with its convicts, like ours, mostly negroes, the average rate for the past ten years among its State convicts has been less than twenty per thousand, while ours for the same

time has been fifty-six per thousand, and eighty per thousand among our county convicts.

While it is a fact that in some of the States I have named the bulk of the convicts are white people, and would naturally have a smaller death rate than ours, still the great differences cannot be explained from racial causes alone.

So, then, this brings us to the very important question: Why do we have a death rate so much in excess of that naturally to be expected from causes ordinarily existing in prison confinement, and so much in excess of some other State penitentiaries? The answer is to be found mainly in the fact that our convicts, both State and county, are leased to coal mining contractors, *regardless of their physical condition and regardless of their ability to perform such labor and live.*

We are forced to this conclusion from a careful study of the reports of the prison officials themselves.

These reports all show that the death-rate is small among convicts doing farm work, saw mill work, turpentine work, lime-making, brick-making, or any other kind of work performed in the open air and sunshine—pursuits in which most of the convicts were engaged prior to their incarceration in our penitentiaries, and involving no radical change in their former modes of life, as does mine work.

Of course, convicts who are engaged in these pursuits, in the open air and sunshine, do not die nearly so rapidly from a number of diseases that are incident to coal mining operations, where men are congregated in prisons in large numbers, to-wit: tuberculosis in its various forms, pneumonia, pleurisy, diarrhoea, and other germ diseases, to say nothing of quite a number of fatal accidents. Speaking to a body of medical men, I need not take time to elucidate this proposition. Suffice it to say that for the past ten years, from 1890 to 1900, the prison reports show that nearly half of all deaths occurring among State convicts were caused by tuberculosis in some form; and the reports also show that the majority of all these cases were contracted at the mines.

A great deal has been said and written upon the subject of separating the tuberculous from the non-tuberculous convicts, and it ought to be done. It would be

of much importance to those not infected with the disease. But, that is not all that should be done; for, most of the diseased would, perhaps, die after being separated from the uninfected, even though their lives were prolonged for a time. What we want to do is to stop the manufacture, so to speak, of tuberculous conditions in convicts; to withhold the material, namely, the feeble and physically unsound men, out of which consumptives are made from subjection to conditions and environments whch develop the diseases so readily; to keep feeble and unsound men out of the mines; to keep them *away* from the mines.

I think our last Legislature took a step in the right direction when it provided for separating tuberculous from non-tuberculous convicts. But, in my opinion, it is a subject that should be handled carefully, lest in congregating tuberculous prisoners we may hasten the doom of many of them. My idea would be a large enclosure for the confinement of tuberculous convicts, supplied with tents, at stated distances from each other, in which the convicts should be required to live, eat, sleep, separate from each other. And when too feeble to do this they should be sent to a hospital constructed with this same paramount idea of *separation, open air, and sunshine.* For, tuberculosis is not like the contagious diseases which run their course in a short while, and therefore, may be congregated. It is a disease that lasts indefinitely—as long, in fact, as the infected person may live.

But I trust you will pardon me for this digression. The reports of the Convict Inspectors all show that the death-rate among first class convicts who are worked in coal mines is small; that it is somewhat greater among second class men, but still reasonable—and that it is very large, indeed, among third and fourth class men.

Dr. R. Aug. Jones, then State physician, very clearly shows this to be true in his report for 1888 to 1890. And again in his report for 1890 to 1892, in discussing the matter he says: "It thus appears that less than one per cent. of the first class convicts die per annum. Less than two per cent. of the second class die per annum, while nearly ten per cent. of the third and fourth classes die per annum."

He also says in this report, "I repeat here, to emphasize the great lesson taught by these facts, that none but first and second class convicts should work in coal mines." In his report for 1896, our worthy president of this Association, Dr. Cunningham, in discussing the rate of mortality, points out very clearly that by far the greatest death-rate among convicts at the mines is among the third and fourth class men. He says: "These figures show conclusively that more than two thirds of the mortality is among less than one-half of the convicts, to-wit: the third and fourth classes."

This statment alone, disconnected from any other testimony, coming as it did from a former State Physician, and one who for the past fifteen or eighteen years has been physician for the convicts in the employ of the Tennessee Company at Pratt Mines; and than whom no one in Alabama is better posted on convict matters, ought to have had great weight in shaping the future policy of the State toward the employment of its convicts in mine labor. But it did not; for, like the sow spoken of in the scriptures, the State returned again to its wallowing in the mire, and repeated its reprehensible, indiscriminate lease act, so hazardous to the lives of many of this unfortunate class.

A great many of these facts, concerning the health and mortality of convicts worked in the mines, were known to our State officials, *even prior to 1887*, when a lease was made for ten years of *all* the State convicts who were able to do anything like a fair day's work when received from the jails into the penitentiary. For the reports of the Inspectors show a death-rate nearly three times as great among those who were then worked in mines as those who were worked on farms.

In 1882, at the time Dr. Gaston so vigorously criticised the State penitentiary, in his annual address as president of this Association, the reports show that the death rate was nearly five times as great among those in mines as those on farms.

The Inspectors in their report for 1882 to 1884, say: "The sickness at the mines and the mortality there, both from disease and accident, are strong arguments against the employment of convicts in that kind of labor." And in this same report we find that in many

instances among those engaged in farming the death rate was only about one per cent., and in some places not that high.

I think I am safe in saying that in no case, down to the present time, does the *highest* death-rate among convicts on farms, and those working at other open air pursuits, including the poorest physical classes, exceed one half of the *lowest* death rate among those worked in mines, in which are included all the robust men. In many instances the rate is not as great as one half.

And then after the ten years lease expired, with the reports of all the prison officials, especially the medical reports—teeming with convincing facts against such a policy, a lease to coal mining contractors was again made for five years upon the *same basis* as the ten years lease just closed—and the unsightly blot of an exorbitant death-rate still mars the records of our State institutions.

"Man's inhumanity to man," in this matter, is still conspicuous and is stamped with the approval of Alabama's law making powers.

I consider the last official utterances on convict matters, made by our wise and beloved brother, the late Dr. Cochran, then State Health Officer, as being worthy of being repeated in connection with this paper. They were made in a report to Governor Oates in 1895, and are as follows: "The situation that confronts us is a very embarrassing one. We have good prison management and so far as we are able to discover we have good prisons, and abundant attention to the commonly accepted principles of sanitation; and yet with all this we have a persistently high death-rate—a death-rate that is high all the time, with occasional exacerbations, when, it becomes very high indeed. An analysis of the causes of the deaths shows that the regular mortality is due to a very miscellaneous assemblage of causes, while the exacerbations are due to outbreaks of epidemic or germ diseases, such as pneumonia, diarrhœa, dysentery, and especially tuberculosis, in acute and chronic forms, and affecting various organs.

Tuberculosis is, of course, a permanent factor of the death-rate, but it seems occasionally to assume the character of an epidemic, as, at Pratt Mines in the month of May just past. Our convicts are mostly

negroes. It is probable that a goodly number of them are not in first class physical condition when they reach the mines. The life and labor of the mines is a new experience to them, and involves radical changes in all their habits and surroundings. They have been accustomed to the largest liberty of action; but now they are confined in very narrow limits. They have been accustomed to the sunshine—are indeed the very children of the sun; but are now cut off almost completely from all opportunity to bask in the rays of that great luminary. In the meantime, they become demorilized and suffer from nostalgia, and in many ways become less able to resist the encroachments of disease; and on account of being crowded together in such large numbers they are specially liable to suffer from invasions of epidemics.

Work in the mines is not itself especially unwholesome. Free miners do not show a high death-rate. But our experience in Alabama seems to prove that there is something in the life of miners and in the work at the mines that is inimical to the physical welfare—to the health and longevity, of our negro convicts. This being so, it would seem evident that *none but strong men in good health should be put to work in the mines.*"

While I joined and assisted Dr. Cochran, as Physician-Inspector of Convicts, in preparing this report, and in making the investigation into the cause of the specially high death rate prevailing at that time among the convicts at the mines in Jefferson county, still, the report was written almost entirely by Dr. Cochran, and bore the unqualified approval of his great mind.

I read just now that "Free miners do not show a high death rate." It should be borne in mind, however, that free miners, parts of every day, and on Sundays and holidays, when not working in the mines, are at liberty to enjoy the vitalizing elements of open air and sunshine, and are not congregated, like convicts, in large numbers, in prison. Convicts never have such opportunities; nor are free people under the mental pressure and dissatisfaction that must necessarily exist among people imprisoned.

The Physician-Inspector of Convicts in his last report (1898 to 1900) says: "The health at the *small camps* has been remarkably good, only 17 deaths hav-

ing occurred at fourteen small camps. Fifty to one hundred convicts are kept at each of these small camps, and they are employed at farm work, in lime kilns, saw mills, and turpentine manufacturing." I think the rate of these "small camps" does not exceed 1½ per cent. per annum, although it is not specially stated in the report.

And this is the secret of the small death-rate in the Georgia penitentiary. Only about one fifth of her State convicts—and the best men physically—are worked in mines. The others are scattered all over the State in "small camps" and engaged in various kinds of open air employments.

So, then, it appears that after full and sufficient notice of the evils connected with her course of hiring the bulk of her convicts in large numbers to coal mining contractors, the State continues to pursue the same policy. She shuts her eyes to the unnecessary rigors of her penal system, and stops her ears to the cries of many of her unfortunate criminals, as they go down to premature graves.

And why, pray, does she so persistently pursue such a course? The only reasonable explanation is to be found in the fact that it puts money into the vaults of the State Treasury.

It would be somewhat shocking to our sense of civilization and refinement to say, in cold figures, that the lives of so many of our criminal population, after being incarcerated in our penitentiaries, had been deliberately sacrificed for the sake of putting so many thousands, or tens of thousands, of dollars into our State Treasury,—and yet, such a statement would not be very far from the truth.

When the State puts third and fourth class convicts into the mines, and suffers the different counties to do the same, knowing them to be unfitted to perform such work and live, and that those same men put to work on farms and at other open air employments do perform such kinds of labor and live, it seems to consent, and become a party, to the increased death-rate at the mines for the sake of the increased pay the coal mining contractors can pay, over contractors engaged in other avocations. For no other kind of work in this State pays anything like the returns for convict labor that

mine work pays. No other class of contractors can pay the prices for convict labor that mining contractors can pay. *And this fact above all others, accounts for so many of our convicts being worked in coal mining operations, and this, in turn, accounts for the excessive death-rate among the prison population of this State.* The State puts itself, in this matter, in the light of an avaricious money-getter, and that too, at the sacrifice of human life.

This is a very large subject—one on which a volume could be written. But, I have only been able, in this paper, to jot down a few of the most prominent ideas that have come into my mind.

I cannot leave it, however, without expressing the hope that this Association, which is the highest medical tribunal in the State, and whose official utterances, acts, and recommendations ought to have great weight in guiding and directing our State in matters of this sort, will take some action at this meeting in regard to it.

It seems to me that if some disease in the State were destroying the lives of a large number of people *in excess* of the ordinary death-rate, our State Board of Health would be active in its official efforts to suppress and eradicate it. And I know of no good reason why official action should not be taken by our health officials to induce our law-making powers to put down an excessive death-rate caused by the unnecessary rigors of our penal system.

And, it seems to me, the best way to reach the trouble is through the law-making power of our State. For it appears, in the light of our past experience, that so long as the law lets it remain possible for zealous State officials, mercenarily inclined in the interest of the State, to sacrifice the welfare of our convicts, from a health standpoint, it will be done.

It seems to me the best way to reach our law-making power in this matter is through the official executive arm, so to speak, of our State Medical Association, to-wit: Our State Board of Health—especially when so instructed and advised by this Association.

I think that one or two short bills enacted into laws on this subject would put the matter in much better shape. We need a law providing that upon the expira-

tion of present contracts, or at once, not more than one-fourth or one-third of the State's ablest convicts shall be leased to mining contractors; and that these shall be changed from time to time, when necessary on account of health conditions; that a violation of this section shall be ground for impeachment proceedings against all officials by whom it is disregarded.

In the second place, the different counties of the State should not be allowed to hire any of their convicts to work in the mines but men who are physically sound, in all respects, and who have been so pronounced by a competent medical examiner. And let the same penalty attach to violations of this clause, as already stated above.

County convicts should not be worked outside of the counties in which they are convicted. In my opinion, if these few principles were incorporated into law an unsightly blot in the history of our State penitentiary would be removed; and our faces would not have cause to blush with shame when the dealings with our convicts were held up to the scrutiny of a civilized nation.

In conclusion, I must state that the history of our penitentiary shows that most of the efforts of the State to work its convicts on its own account have proven failures, and frequently brought the State largely in debt—especially in the early history of the penitentiary. It was this cause that gave rise to the lease system, which is still in vogue. But, I am satisfied that if contractors can make convict labor profitable and pay hire to the State, the State, having no hire to pay, can, at least, make its penitentiary self-supporting. The idea of making the penitentiary a vast money-making machine is all wrong, and should not be tolerated, when it sacrifices the health and lives of so many convicts.

And then, again, in the light of an advanced and civilized age, the State has no moral right to delegate its duty and responsibility to discipline and reform its criminals to a lot of contractors—corporations which are avaricious at best, and whose highest interest is the money they can make out of convict labor.

The State, of course, has a right, and it is the duty of the State, to protect society; but it has no moral right to sacrifice the lives of its criminals for the sake of large profits.

It is also true that in many of the State penitentiaries I have named as having a very reasonable death-rate, convicts are not leased at all, the legislatures of those States making large annual appropriations to help maintain their penitentiaries. None of them are attempting to convert the labor of their convicts into a vast money-making power, as we are doing, and thereby, incidentally, sacrificing the lives of many human beings.

Are those States less avaricious than we are? Are they more humane and civilized? Are they more patriotic and public spirited?

I do not believe it. I think it is largely because the matter has never been properly brought to the attention of our people. I believe there are no better, nor more civilized and enlightened people in the world than those of Alabama. But, good people, sometimes, as States and communities, do wrong.

Let us protect society; let us discipline and reform our convicts, as best we may; let us work them—and even lease some of them out, if necessary, to the extent of making our penitentiaries self-supporting; let us punish them when necessary; but inasmuch as they are human beings, and completely helpless and powerless to resist ill-treatment, let us spare their lives and treat them with justice and humanity.

DISCUSSION.

Dr. I. J. Sellers—I am glad to have heard the paper just read. The author discussed his subject very fully, and emphasized the importance and humanity of diminishing the high mortality in our prisons. He failed, however, so far as I noticed, to call attention to what I consider one of the fruitful causes of that mortality, namely, the great prevalence of syphilis among our negro population. The doctor very properly says that the large part of the inmates of our prisons are negroes, and that they are especially susceptible to tuberculosis.

I think that every physician, of even a few years' experience, has noticed that a very large percentage of tubercular cases among negroes give a history of having had syphilis, or show conclusive signs of that disease.

Now, with their constitutions already undermined by syphilis, if put in prison and deprived of freedom, fresh air, and sunshine, they fall easy victims to tuberculosis, and a high mortality results. The remedy obviously lies in two directions: Either syphilis must be exterminated from among them, or they must not be worked in mines; that is, the weaker and less vigorous ones.

A syphilitic negro, who, if imprisoned and worked in a mine, will soon die from tuberculosis, may live a long time and do efficient work on a farm, or in other place where he gets abundance of fresh air and sunshine.

That syphilis plays an important part in causing the high mortality in our prisons should be kept in mind. I believe it would be good policy to subject all negro convicts who present evidences of syphilitic infection to a thorough course of anti-syphilitic treatment before assigning them to work in mines, especially, as the very large majority of them who have been poisoned with the disease have never had the benefit of such a course of treatment.

Dr. L. A. Jenkins—I agree fully with the views expressed by the last speaker (Dr. Sellers) as to the part syphilis plays in producing a high mortality among the convicts in our prisons. The very large majority of the negroes who go there have previously contracted syphilis, and, when placed in foul and vitiated air, their health becomes undermined and they become good soil for the germs of tuberculosis to feed upon. My observation at Brookside, one of our mines, where two-thirds of the miners were negro ex-convicts, convinces me that nine-tenths of them were suffering from either scrofula or syphilis, as very often I could find evidences of the initial syphilitic lesion. I noticed also that ex-convicts did not stand any kind of fevers or injuries well, death nearly always claiming the victim.

In conclusion, I desire to repeat that the cause of so much tuberculosis in our prison population is not so much the presence of the germs of that disease, but the fact that they find such a fertile soil in which to grow, rendered so by previous dyscrasiæ, chiefly syphilis. If we could eradicate syphilis from among the negroes, we would not have so much tuberculosis in our prisons.

THE PREVENTION OF INFECTIOUS DISEASES.

By Thaddeus Alonzo Casey, M. D., Albertville, Ala.
Member of the Medical Association of the State of Alabama.

The ultimate object of human effort is happiness; but disease and death destroy happiness, and bring pain and sorrow instead.

The prevention of one epidemic of yellow fever, small-pox, or typhoid fever, is valuable beyond computation in dollars and cents, and should, therefore, whenever possible, be accomplished regardless of cost.

However brilliant may be a surgical operation for the relief of appendicitis, hernia, etc., it concerns but one person; whereas, a single case of infectious or contagious disease, concerns primarily the whole surrounding population, and secondarily, the entire population of the State. Indeed, it often happens that the announcement of a case of infectious disease in a region, however remote, excites the interest and attention of the whole civilized world.

The above being undeniably true, it follows that no subject deserves more serious and careful consideration by individuals, communities, States and Nations, than the prevention or control of contagious or infectious epidemic diseases. It is not strange, therefore, that some of the greatest intellects in our profession have been devoted to the study of this subject, and the labors of such men as Jenner, Eberth, Koch, Pastuer, and many others, have accumulated a mass of useful knowledge concerning the etiology and pathology of such diseases that is more valuable to mankind than it would be easy to estimate. It is strange that under these circumstances and in the light of repeated demonstrations, there can still be found, not only among the intelligent laity, but even in the ranks of medicine, men who question the truth of modern discoveries, even to the usefulness of vaccination.

If a beneficent discovery like vaccination, whose protection has been so thoroughly demonstrated, still meets

with doubt and opposition at the end of a hundred years, the outlook for the acceptance of scientific truths not so easily demonstrable to the laity is not encouraging.

There are constitutional doubters everywhere, men who doubt everything, and our profession is not free from their pernicious influence.

Until by education of our doctors in the brilliant results of modern investigation, we can present an unbroken front to the skeptisism of ignorance, we cannot hope to accomplish the complete downfall of opposition to the measures necessary for the protection of humanity against contagious epidemic diseases. When every physician is qualified to instruct his clientele how to protect themselves against such contagions as typhoid fever, pulmonary tuberculosis, diphtheria, etc., and makes it his duty to do so, on all proper occasions, the general public will soon become educated to a point that will insure their support of every sanitary measure we find it wise to suggest. It is along this line that the success of public sanitation lies.

This paper will call special attention to three divisions of the subject. First, the modes of conveyance of infections; second, the importance of early diagnosis, as a sanitary necessity; third, the duty of the State to provide facilities for accurate scientific investigations, and for the care of the consumptive poor.

If we know from what quarter a danger threatens us, in what shape it will come, and what will bring it, as well as what will not bring it, we are at once placed in a position favorable for defence.

We know that hydrophobia is transmitted by the bite of a rabid animal, and the knowledge enables us so to control the distribution of rabies that most physicians will spend their lives in active practice without ever seeing a case. Indeed, so rare is the disease, that some of the constitutional doubters doubt its existence.

I believe that the propagation of each and every contagious disease could be as certainly and efficiently prevented as rabies, if we as thoroughly knew and understood the means by which it could be communicated.

As it is, every human being should know that a slight exposure to a mild case of a contagious disease may be followed, in the person exposed, by an invasion of the severest type. Thus, varioloid may communicate fatal,

confluent smallpox; the sting of one infected mosquito, if the latest theories be correct, may result in a malignant yellow fever, and a single drink of water can convey the germs of death from typhoid fever. These truths should be proclaimed everywhere, until the laity would learn to protect themselves from unnecessary disease and suffering.

Infection and toxæmia differ widely. Toxæmia, poisoning of the blood, as by the bite of a snake, is fatal or not, according to the power of the patient to endure the results until the poison is eliminated. But infection is the sowing of the seeds of disease, which will germinate and multiply beyond computation. Concerning the manner of transmission of infections, there has been much discussion and difference of opinion.

Dr. A. H. Doty, Health Officer of the port of New York, after an immense experience, and the most favorable opportunities for observation, says that most of the laity and many physicians believe infection can be transmitted from a sick person to a well one by the clothing worn by a third who has been exposed, but is not infected. That is to say, clothing can carry infection. This he calls a seductive theory, but states that in an experience of over twenty years spent in dealing with infectious and contagious diseases, he has not seen a single case in which the disease was transmitted in this way. In almost every case where such transmission was suspected it could be shown that the persons affected had been in contact with others sick with the same disease, though perhaps, in an extremely mild degree.

He gives numerous instances, which the limits of this paper, will not allow me to quote, where nurses, attendants, ambulance drivers, surgeons and other inmates of hospitals devoted to the care of patients suffering with smallpox, typhus fever, and other contagious diseases, went freely in and out of the hospitals, mingled with their friends at large, and spent their nights at home with their families, and in no instance did these men communicate typhus fever or smallpox to their friends.

That insects are the carriers of disease is no new theory.

It is well known that the cattle tick is the carrier of Texas fever, and the common domestic fly is almost

known to be capable of transmitting the bacilli of typhoid fever. The current theories concerning the relation the anopheles mosquito bears to the transmission of the malarial parasite are well known. The recent investigation of the part the culex mosquito plays in epidemics of yellow fever is no new thing. Twenty years ago Dr. Finlay of Havana made experiments along this line, by causing infected mosquitoes to bite fresh recruits from Spain, and the conclusion reached by him and his collaborator, Dr. Delgado, was that the transmission of yellow fever by the culex needed no further proof. In 1881, he read a paper on the subject before the Havana Academy of Sciences. The recent experiments of Drs. Reed, Carroll, Agramonte and Lazear, of the United States army, resulting in the martyrdom of Dr. Lazear for the sake of science, are fresh in our minds. Suffice it to remind you that their conclusions are similar to those of Dr. Finlay. If further observations confirm these conclusions, sanitarians will have the fly and the mosquito to fight instead of fumigating freights and cargoes, and the clothing of travelers.

Upon whatever else sanitarians may disagree, all are united in the belief that the patient sick with an infectious disease can communicate it to any well person, who is not immune. Therefore, it follows that it is of supreme importance, when a patient is thus affected, that the nature of his disease should be recognized at the earliest possible moment.

The treatment of the patient and the protection of the public demand this. This is especially true of tuberculosis. As when a house is on fire the detection of the fact before it has spread to an uncontrollable degree is all important, so is it with infectious diseases. In such cases concealment, or failure to recognize, means an epidemic, with all its dangers, losses, and terrors. In January, 1900, a young man fled from Alabama City on account of smallpox, and stopped at his father's home, ten miles from mine. He sickened and died the third day, and though I had not seen him, I had no difficulty, from the description of his case, in pronouncing it smallpox of hæmorrhagic type. Providing myself with virus, I went there to vaccinate the people of the neighborhood, to protect them from danger. To my chagrin, they declined. Twenty days later the young man's father was

taken ill with typical symptoms of smallpox. I saw him the third day, but he had diagnosed his own case as "a bad cold." On the tenth day he died with confluent smallpox.

At my first visit to him the family, convinced and alarmed, consented to be vaccinated. There were six of them. Three had smallpox, three varioloid. All recovered. The county spent five hundred dollars, business was suspended, schools and churches closed, and a state of partial panic prevailed. All this might have been avoided, and at least one life saved, by the early diagnosis of the first case, and general vaccination.

In the same year a young lady in my neighborhood died with typhoid fever, contracted while visiting a house where there was an ambulatory case of the disease, in daily association with the family. Another case originated, so far as I could judge from my investigations, from a single drink of infected water. The lesson to be learned from such instances is first, a knowledge of the existence of the danger; second, a knowledge of its manner of propagation; third, a knowledge of the means of avoiding infection. All these things should be known by the general public.

The State should maintain a sanatorium for the care of the Consumptive Poor.

For reliable statistics concerning the ravages of pulmonary tuberculosis I have relied upon the statements of the Health Department of the Sanitary Bureau of New York. These statistics show that there is an average of 172 deaths per week in the city of New York from tuberculosis. This is equal to 8,944 deaths per year! Think of it! More than one death for every hour of the year in one city from one disease alone.

The ravages of any disease of appalling fatality have usually given to that disease the name of a plague. The same consideration has caused pulmonary tuberculosis to be termed the great white plague. Last year it was estimated that in the city of Baltimore alone there were 10,000 cases. Medical literature teems with articles concerning it. A "Tuberculosis Congress" is to meet in London this year, and Prof. Robert Koch will give the opening address. There is no disease in the entire list that slays more victims and commands more study at home and abroad. As a result, the importance attribut-

ed to heredity in its propagation has been greatly modified. It is now believed that though a susceptibility may be inherited, the disease itself is almost never planted in the system of the unborn child. This being true, it follows that the seeds of the disease are communicated from the sick to the well; and, further, that if the disease can be recognized in its incipiency, it can be controlled, segregated, and finally obliterated, from the earth. Modern experience points out as the best house for a consumptive, one consisting only of roof and floor, with adjustable side walls of canvas. The State should provide sanitaria like these for the care of the consumptive poor, where they could be maintained in comfort, and under circumstances most favorable to their recovery, and at the same time suitable regulations could be enforced for their protection from self-reinfection, and from their disemminating the germs.

The State should also maintain a Laboratory of Pathology, where, free of all cost, the different counties could have made such microscopical, chemical, or cultural investigations as the conditions might demand.

A small sum of money thus expended would return a large sum of vitally useful information to our citizens.

Dr. Wyman, in his paper, read at the Pan-American Medical Congress in Havana, places the importance of sanitary conferences above that of the Peace Conference at The Hague. There can be no doubt of the importance of this matter, nor of the fact that it is one subject concerning which all nations are in harmony.

Something has recently been said about establishing a permanent home for this Association. Should such a home ever be established, I would like for this inscription to be emblazoned on its walls in the most conspicuous position:

SANITATION IS THE CROWNING ACHIEVEMENT OF MEDICINE.

CLIMATIC EFFECTS IN TALLADEGA COUNTY ON DISEASES COMMON TO ALABAMA.

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Talladega is situated in the southern border of the northeastern grand division of Alabama, which comprises the mineral region of the State. Two ranges of the declining ridges of the Appalachian Mountains traverse it from the northeast to the southwest. One of these ranges divides it from Clay county, on the east, while Coosa River forms its western and southern boundaries. Three large streams of water have their sources in these mountains, and find their way across the county to the river, being fed on the way by numerous springs and rivulets. The water is, as a rule, hard limestone, with, here and there, a mineral spring, at least two of which—Talladega and Chandlers—have gained, for their localities, some celebrity as health resorts. It is a picturesque, hill country, usually cool and healthful in summer, genial and temperate in winter; but, in spite of all that, the inhabitants sometimes get sick; and to some of the more common diseases I invite your attention to-day.

Malaria takes precedence of all other morbid conditions, coloring, more or less, all the ills that afflict our people. Proximity to the river increases the liability to infection, but residents in the mountains are not entirely immune. Manifestations of malaria are more pronounced and varied in summer and fall, but we meet them, in some localities, at all seasons of the year. At the request of Dr. H. A. Moody, special observation was made in the spring of 1900 to ascertain the relation between the earlier manifestations of malaria and the appearance of the mosquito. It was found that many cases of intermittent malaria appeared before the advent of the mosquito. The first abundant crop of mosquitoes, (both brown and spotted), was not followed by an increase of malarial diseases; but an increase succeeded

a few days of excessively wet weather, which terminated a drought of some weeks. Not since 1866 has there been such an epidemic of malaria as followed this outbreak, which persisted without intermission until late in the fall. A number of interesting observations were recorded which seemed to discredit the accuracy of the conclusions drawn from the experiments of Dr. Manson, in Southern Italy. Major D. M. Andrews, of the United States Engineering Service, in charge of Lock 4 on Coosa River (a man of character, observation, and scientific training), erected a mosquito-proof cottage before the arrival of his wife from the mountains of East Tennessee. In one month after she reached Lock 4 she was stricken with intermittent malaria. Quinine effected a cure. The drinking water was then boiled, and the family remained immune, with the exception of a brother, who refused to drink the boiled water until after he had fallen a victim to one spell of chills. This spring the same family, living in the same cottage, and drinking boiled water, have had malaria before the advent of the mosquitos. In another family, on another section of the river, without any protection from mosquitos, with like environments, both for the night and the day, eight had malaria and two did not. In still another family in the interior of the county, with no protection of any sort, the father and three sons had intermittent malaria in a most violent and intractable form, while the mother and another son were immune. In the same locality, two brothers ate together, slept together, and worked together. One had chills, and the other was immune.

Many other suggestive observations, not germane to this paper, were made. The conclusion, however, seems justified, namely, that several factors enter into the infection and propagation of malaria, the most potent of which is, perhaps, a lowered vital resistance induced by atmospheric disturbances, environments, habits of life, and dietary. It seems more than probable, too, that there are three modes by which the individual becomes inoculated with the specific infection; the water we drink, the air we breathe, and the bite of the mosquito.

Typhoid fever is with us, more or less, all the time. It differs in some degree from the typhoid fever seen in the Charity Hospital at New Orleans, and very essen-

tially from that seen in Baltimore. I have never seen a typical case of typhoid fever in Talladega county, such as is met with every day in Baltimore. There seem always present two elements of infection which find expression in a typical symptom. In some cases the malarial element predominates; in others the typhoid element predominates; and the case is mild or severe, according to this leaning to type.

I would not be understood to argue that a mixed fever exists, but I do most emphatically believe that at certain seasons of the year the two poisons do co-exist in almost every case we see, the one poison accentuated by the other, and both appealing to the watchful care of the attending physician. No blood examinations have been made of these cases by the writer, but cases were closely studied clinically during the period covered by microscopical investigations made by Dr. W. G. Harrison, and reported to the last meeting of this Association. These examinations seemed to confirm theories previously held by leading clinicians of the country.

You will naturally conclude from our variable climate that pulmonary and catarrhal troubles are not infrequent. Asthma is a trouble almost unknown among us, and imported cases seem much benefited by residence with us. Pulmonary consumption is not so infrequent among white people as formerly, but is markedly on the increase among the negroes. Each epidemic of influenza in the spring time is followed by a harvest of consumption in the summer and fall. Negroes seem to have no resistance to tubercular infection. They die, almost without exception, within from six to twelve months after the initial invasion, and no plan of treatment has even a palliative effect. Pneumonia is not especially prevalent, but is not rare. A few cases occur in the various parts of the county every winter and spring, with here and there an occasional epidemic. These epidemics appear, at times, to have a very strong element of infectiousness. Upwards of 150 cases of pneumonia have been treated by the doctors in the town of Talladega, and, possibly, not two dozen cases outside of this locality. Whether the tendency is due to local conditions, or whether the contagious principle is the deciding factor, the data at hand do not justify an opinion. It is not the fatal disease with us that statistics

show it to be in other quarters. The death-rate for the county, according to the best statistics attainable, is less than ten per cent.

Acute bronchitis and follicular tonsillitis seem to bear very close clinical relationship. They are exceedingly common troubles, rarely ever kill anybody, but persistently refuse to entirely subside. They are almost always accompanied or followed by rheumatism, in some form, and the writer thinks it probable that the three troubles are nothing more than varieties of a common pathological condition not yet understood. It has been noticed that these troubles are more pronounced during the variable climatic changes of spring-time, when the human economy is undergoing those metabolic changes which adjust it to a change of season. It is known that at such times the emunctories are taxed to their utmost power of elimination, and it is probable that the disturbance of the function of the skin overtaxes the kidneys, rendering them incapable of eliminating their normal quantity of solids; which, being stored, find expression in sore points, inflamed tonsils, and a hundred other dyscrasias yet to be interpreted by the chemist and the miscroscopist.

This observation is accentuated by recent observations as to the whole quantity of urine passed in twenty-four hours by patients suffering from these troubles. Scanty urine was found to be a constant symptom, and every case began to improve immediately upon restoration of the normal function of the kidneys. This is a question of especial interest, and very broad in its scope, and it is with regret that it is of necessity passed, with this casual reference.

Nephritis, acute and chronic, is not infrequent, but is met with. It presents no features of peculiar interest. Renal calculus is, however, very common. It is worthy of note that of the sixteen cases, the histories of which were collected, thirteen of the persons drank water from limestone springs, and three of them from the same spring. The remaining three of the thirteen were supplied by wells of similar quality. This observation is more striking, because spring water is the exception and not the rule. One of these cases had complete immunity from attacks while drinking free-stone water, a few springs of which are found in the mountainous regions.

The stones met with have all been of the uric acid variety.

It does not appear that bowel troubles differ from the same troubles elsewhere, but it has been noticed that such troubles are more asthenic and much harder to manage when there is a failure of the fruit crop. We have a record of one unusually fatal epidemic of dysentery during the spring of 1899, when there was no fruit. It was noticed, too, that the more violent expressions of the disease were confined to the negroes and the poor. The more opulent classes, who could command fruit during the winter, having more or less immunity. This scorbutic tendency was manifest during the whole of 1899 and the early spring of 1900, when the epidemic of la grippe was attended with such an unusual degree of prostration. It was also noted that all troubles treated during this period responded promptly to the administration of lime juice, and bore with facility heroic doses of strychnine.

Liver troubles are not unusual. Two epidemics of catarrhal jaundice, in the springs of 1896 and of 1898, presented some very interesting features. The disease was so prevalent in certain localities as to suggest a specific infectious or contagious principle. No conclusions were reached on this point, however. Three puerperal women, who contracted the disease, aborted, and died with symptoms of yellow atrophy of the liver.

Epidemics of the zymotic troubles common to Alabama, occur. It is not believed that yellow fever can live in this climate. The records of three cases that occurred among refugees have been collected, all of whom died, without further development of the trouble.

Diphtheria and scarlet fever have not been epidemic for some years, but we meet a case or two of one or the other every year. A number of cases of diphtheria have been recorded in the last few years, apparently of spontaneous origin. The children were residents of the rural districts, and had not been away from home. The disease would run a typical course, and no other member of the family contract the trouble.

Childhood and infancy run the gauntlet of diseases incident to this period of life, but I do not know that they differ from like troubles elsewhere. Dr. B. B. Sims reported a case of infantile scorbutus in the spring

of 1900. He called attention to the rareness of this trouble in the South, and pointed to the fact that changing social conditions might make it more common in the future, and, for like reasons, I direct your attention to it to-day.

DISCUSSION.

Dr. I. J. Sellers—With reference to the family at Lock No. 4, the precautions taken in screening the house and boiling the water were sufficient to prevent malaria, and probably did so. The trouble was that the members of the family were not protected from mosquitoes, when out of doors.

With reference to two poisons existing at the same time in the same person, namely, typhoid and malarial organisms, I doubt it. The trouble is that the clinical symptoms sometimes resemble each other very closely, in fact, cannot be differentiated without the microscope. Had it been used in these cases, it is probable only one organism would have been found.

My limited experience leads me to believe that we do not have both these diseases existing with well developed clinical features in one person, at the same time.

Dr. H. A. Moody: I consider this discussion most business-like and useful. I wish to say, concerning the agency of the mosquito in disseminating malaria, that I am not in a position to deny to the festive anopheles the power thus to spread the poison. But I am in a position to deny to him the sole agency. Last year, I made some observations on that point, and had the able assistance of some of my colleagues of this body. The gentleman who read the paper under discussion was one of the number. It took but a little while to secure the records of malarial outbreaks in April, malarial attacks of the winter-spring type, in places where no mosquitoes had existed for four months. If they lived over from the preceding season they must have lived from the preceding spring, as the attacks were not of the æstivo-autumnal character.

I wish, too, to say a word about the blisters spoken of as being used in pneumonia. By many they are derided as crude, cruel, and unnecessary. When I hear one abusing blisters in that way I reflect that not all blisters

are alike, either in character, management, or effect. Once, I wondered why people who had been blistered were so urgent to have them repeated whenever a pleuritic pain, with or without pneumonic inflammation, occurred. But now I know why. I had pneumonia myself, with the whole list of pathognomonic symptoms, and the relief from pain and oppression I experienced every time a blister drew over a painful spot fully explained the matter. Dr. Eckley's paper explains the physiological reason. There is a direct and uninterrupted line of nerve communication between a spot on the surface and the viscera beneath it. So, both from theory and experience, I believe in blisters, in proper cases.

Dr. A. A. McKittrick—I rise merely to confirm Dr. Moody's statement as to the indication and utility of blistering in pneumonia.

Long experience has demonstrated to my mind their efficacy. The old Hippocratic aphorism, ubi irritatio ibi flexus, may or may not be the true explanation. But, whoever can be convinced by observation and experience will be obliged to conclude that in proper cases blisters, properly applied and properly managed, are efficacious for good.

Dr. W. H. Robertson—Lest, after the adjournment of this body, all those who are unfortunate enough to have pneumonia should be unmercifully blistered, I desire to say that an experience of fifteen years has fully convinced me that blisters in pneumonia are not only useless, but positively harmful. During the first eight years of my professional life I frequently applied blisters in pneumonia, because others did it, and because I did not know how to deny my patients that abominable luxury that was accorded to their fellow sufferers.

In 1893, I adopted the following treatment: Calomel, quinine, and dovers powders, with antikamnia and codeine, to control pain and fever.

After the secretions have been aroused, I give strychnine, digitalis, and whisky. I sometimes use turpentine, with hot flannels or mustard, to redden up the chest, which is then covered with cotton batting, and a close fitting jacket of oiled silk, to protect it from changes in the temperature. This plan of treatment is

practiced by Dr. L. Emmett Holt and Dr. August Seibert of New York. They are eminently successful with it in their hospitals and private practice. A favorite expression of Dr. Seibert is that "we get along beautifully with pneumonia when we let the pneumonia alone."

My own experience with this plan of treatment has been entirely satisfactory, and much more successful than when I used blisters. After all these experiences and observations, I desire to record myself as unalterably opposed to blisters in pneumonia, as they are unscientific and wholly unnecessary.

Dr. Welch (closing) : In view of the surprise, to put it mildly, which all seem to share at the low death rate from pneumonia reported in this paper, allow me to say that I made the statement in all earnestness, after careful investigation of the facts; and what is true of Talladega county is true of the district contiguous to it.

We do not claim more skill in handling this trouble than is possessed by our brethren, for quite frequently the treatment consists solely in good nursing and a placebo. Uncomplicated cases of pneumonia in patients between the ages of five and forty-five years, will, as a rule, get well with no medicine at all, save what may be required to keep the bowels moving with sufficient regularity. With us, the disease lacks the fulminating qualities seen in the colder latitude of Baltimore, and, we believe this is due to climatic effects. Our deaths from pneumonia are confined almost entirely to negroes, old people, and small children. It would seem that from some cause negroes do not bear well any sort of pulmonary trouble.

In my remarks on diphtheria I used the word "spontaneous" in the sense in which Dr. Osler uses it. There was no obvious or traceable cause for these cases. One patient had been confined to her bed three weeks with bowel trouble, when she developed diphtheria. With us, as elsewhere, the atmosphere may be infected with the bacilli, which found a favorable nidus for development in the throats of these little patients. Certainly in no case was there any direct contact with the disease, nor did any one of them communicate it to any other.

THE MICROSCOPE IN THE HANDS OF THE GENERAL PRACTITIONER.

By George Heustis Fonde, M. D., Mobile, Ala.
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Early and correct diagnosis of diseases, with a full understanding of their stages and progress, would undoubtedly add more to the success of medicine than all the new drugs, appliances, and methods which general practitioners are so eager to grasp, and to which they are so constantly looking forward.

Early diagnosis, with the ounce of prevention, will always be worth more than the pound of cure.

Scientific diagnosis is based upon a thorough survey of the patient, supplemented by a careful consideration of the various symptoms detailed, and by thorough physical exploration.

In addition to these, let us briefly consider the value of the microscope in the hands of the general practitioner when applied in some of the common affections which daily demand our attention.

When the advantages gained by microscopical investigation are considered, it will be seen that this method of analyzing cases is an almost indispensible aid to the best understanding and most intelligent treatment of the great majority of the affections which we are constantly called upon to treat.

In fact, it would be safe to say that there is no affection, acute or chronic, in which the intelligent use of the microscope would not reveal valuable information as to the nature, progress, or severity, of the case, and as to the degree of damage resulting to the organs which eliminate the morbific elements of the disease.

However, before recounting the advantages to be gained by the use of the microscope in the hands of the general practitioner, I will say that it can scarcely be expected that one engaged in a busy general practice would equip a laboratory with all necessary instruments and appliances for extensive investigation, nor

could he well spare the time to carry out a complicated and tedious technique, if all the equipment were at hand; yet, by far the most of the practical uses of the microscope in medicine are rapidly and easily available without such elaborate equipment, or the expenditure of much time.

The simpler examinations, which may be quickly made, would give the keynote to correct diagnosis and treatment, in a large number of cases.

The clinical symptoms could be observed and weighed, in conjunction with the disclosures of the microscope.

The positive or negative evidence furnished by the microscope would often enable the practitioner to apply treatment more rationally, and estimate its efficacy more accurately, than would be possible without such information; the same evidence would also enable him to avoid much unnecessary and harmful medication.

Cases which require for their investigation culture media, incubators, or inoculation of animals, are greatly in the minority, in general practice, though culture media can be purchased, ready for use; incubators can be improvised, even for such cases as demand cultures; and tissues can be hardened, sections made and stained, without very great loss of time, or expensive equipment.

When cases arise demanding more elaborate microscopical work than a general practitioner could undertake, it would be easy for him to refer them to some one who is fully equipped for such work.

However, it is the object of this paper to outline the use of the microscope as an immediate clinical aid to the more scientific practice of medicine, believing that its comparatively rare employment in general practice is due to the impression of many that its intelligent use presents many difficulties and complications which it would require much preparation and time to overcome.

I will, therefore, call attention particularly to the value of microscopical examinations of the fluid tissues and excreta, which are simplest, and of the most practical advantage.

In reciting cases, I shall only touch upon the points in each which bear upon this subject.

A case presents the following clinical history: Carbuncle on neck, considerable rise of temperature, dis-

tressed breathing, and pain on right side. Coughing, painful, followed by local chest symptoms of pneumonia; expectoration of dark grumous sputa, very tenacious, at first, and becoming quite copious; fever, at first remittent, ranging from 100° F. to 105° F., becoming intermittent. Colliquitive sweats at each fall of temperature. Condition of patient causing considerable anxiety. Question: Is it an inter-current lobar pneumonia, an inter-current tubercular abcess, a broncho-pneumonia of la grippe, or a metastatic focus from the carbuncle, and a developing pyæmia? Microscopical examination discloses influenza bacilli in great abundance, within the pus cells, particularly; absence of tubercular bacillus; absence of pneumococci or pyogenic organisms in sufficient quantity to excite suspicion, even, of them as the cause; quite a number of uric acid crystals were noted during the examination—an additional indication for treatment.

Steady and rapid subsidence of symptoms followed the use of creasote and guaiacol. Patient suffered a relapse, with return of cough and same character of sputa. Again a microscopical examination was made, and showed large numbers of influenza bacilli. Continuing the use of the guaiacol and creasote, the patient again steadily improved, and got out upon the street. Another worse relapse resulted. Examination by the miscroscope was repeatedly made, but no longer showed presence of influenza bacilli. Great quantity of bloody and muco-purulent expectoration persisted, as though coming from a cavity in the lungs,—the result, perhaps, of a chronic pneumonia from the grippe infection.

We see that in this case examination by the microscope at once enables us to understand the case, and removes the suspicion of tuberculosis, of pyæmia, etc.; it discloses the direct cause, and also uric acid as a factor in the bronchitic inflammation, complicating the case, for, it is reasonable to suppose that the uric acid irritation aggravated the bronchitis, and, perhaps, in the beginning precipitated the grippe infection.

Second case. Constant and severe pain in back, soreness of muscles of legs; shooting pain in heel and left leg, and pain in testicle; buttermilk-like flakes in the urine, when passed, and thick buttermilk-like deposit, on standing; local points of tenderness in back.

Examination of urine by the microscope: myriads of crystals of tripple phosphates, sulphate and phosphate of lime; numerous crystals in casts were present, indicating the formation of the crystals in the uriniferous tubules; granular and hyaline casts in considerable number. Up to this time, had not considered the kidneys as contributing to the pain in the lumbar region, nor had the patient's or my attention been drawn particularly to them, by the symptoms, but after the examination, and upon the hypothesis that the crystals forming in the uriniferous tubules would cause irritation and congestion of the kidneys, they were palpated, and found tender. Upon subsequent daily palpations, it was found that a marked degree of tenderness alternated from one kidney to the other; on one morning the left would be decidedly the more tender, and on the next morning the right kidney would be so; reasoning further, on the same line, from the disclosures made, it was concluded that crystal deposits had occurred in the tender points in the muscles of the lumbar region, and this, also, accounted for the general muscular soreness. The patient being a great sufferer from obstinate chronic constipation, and indigestion, laxatives were freely given, and in addition a small dose of Rochelle salts every morning. Diet of buttermilk was ordered. Piperazine, gr. xv per day in a liberal quantity of Donald or Stafford water. Cystogen gr. v twice a day. Urine immediately became perfectly clear and abundant; tenderness and other symptoms subsided; casts became less abundant, but were present. Patient was put on a bitter tonic, which contained styrchnine and hydrochloric acid, and was directed to take a trip. The symptoms in this case were quite severe, and alarming to the patient, and to his family, so much so, that I was asked to call in consultation. The muscular pains in this case were first most complained of, and, later, nephralgia was the most marked symptom. The patient being a male of 17 years, and, as the usual disturbances of the sexual organs at this age accompanied the trouble, or preceded it, there was great depression of spirits and a strong tendency to sexual hypochondriasis. Patient followed directions, and was absent from the city for one week, but, feeling greatly relieved, he returned to resume work; slight and persistent pain

in small of back again annoyed and alarmed him. Examination by the microscope showed very numerous large and small crystals of oxalate of lime; a very few granular casts, aud a few spermatozoa; thus enabling us to note that the faulty metabolism causing formation and precipitation of phosphates in excess had changed, and produced another irritating crystal, but with the same metallic base; the first being the phosphate and sulphate of lime, with the tripple phosphates, and the last being oxalate of lime, and both being capable of producing kidney irritation, which, if not properly understood and corrected, might do permanent damage to the kidneys, or otherwise undermine the patient's health. We see that in this case the microscope could not have been well spared; first, in watching the kidney secretion, to avert a chronic kidney lesion, for, as long as the kidneys throw off casts, etc., we should direct our patient's mode of life and medicinal regimen, in order to treat the case in the most scientific and satisfactory way; secondly, by finding absence of the microscopical elements which are present in renal calculus, in sexual disorders, etc., we were able to reassure our patient.

Third. Two cases of acute nephritis. A microscopic examination of the urine made the diagnosis clear and positive early in the attack. The degree of severity of the cases was estimated by the relative number of renal cells, epithelial casts, and blood cells found. During the abatement of the trouble examinations were made, from time to time, so that a proper regimen might be ordered, and the progress toward recovery guarded. In both these cases uric acid crystals were discovered in comparatively fresh urine after treatment was omitted, and patients were out on the street before disappearance of casts,—thus giving an indication for treatment that might have retarded recovery, if overlooked, or might have resulted in producing a chronic nephritis, or a relapse. One of these cases has never ceased to throw off casts, both granular and hyaline, though the case developed suddenly and showed bloody urine nearly a year ago. This patient was a heavy and regular drinker up to the onset of this attack, but upon my advice stopped off altogether. It is unnecessary to emphasize the importance of the information furnished by the microscope in these cases, and impossible to over-

estimate its value in promating the welfare of the patients.

Fourth. A case presenting the following symptoms: Vertigo, somnolence, irritation and stiffening of the carpo-phalangeal and metacarpo-phalangeal joints, general depression, synovitis of a large joint, with hydrarthrosis and a bronchitis. Urine showed, microscopically, very large deposit of brick-dust sediment; crystals of uric acid, large enough to be seen with the naked eye. Kidneys suspected as the source of trouble. Examination by the microscope disclosed very large and very abundant uric acid crystals; casts filled with numerous crystals of uric acid; numerous leucocytes, evenly distributed, for the most part, therefore, probably from a catharrhal pyelitis, or exudation from the irritated tubules; granular and hyaline casts. Conclusion: uric acidæmia, from faulty tissue metabolism. Anti-uric acid treatment brought about marked improvement in the microscopical showings, and casts and crystals gradually disappeared. Patient recovered.

Fifth: Another case of grippe. Girl of 18; very delicate; had a sand-spur removed from larynx seven or eight years ago, which left chronic thickening of the vocal cords, or a cicatrix, which has ever since caused husky voice. Family already anxious about her. Had been feeling badly for several days before being seized with an attack resembling grippe; high fever; painful cough, and spitting of blood-tinged muco-purulent material. Family concluded that the trouble was tuberculosis, and the patient thought herself doomed.

Microscopical examination showed presence of numerous small infiuenza bacilli, within the pus cells, particularly; absence of tubercular bacilli. The advantage given by the microscope is evident. Liquid beef peptonoids, with creasote and guaiacol, combined with emulsion of petroleum and hypophosphites; steam atomizer for inhalation of formalid (which contains formaldehyde and some of the volatile oils), and decided doses of strychnine with wine, resulted in rapid convalescence.

Sixth case: Stricture from a gonorrhœa of twelve years ago. Patient gave history of frequent urination in the day, with all the accompanying symptoms of stricture, such as pain in the back, from renal congestion, headache, and the passage of urine tinged with

blood, and bloody urine trickling on underwear after micturition. Microscopical examination showed blood and pus in urine, together with granular casts. Gradual dilatation was practiced, and patient slowly recovered. Was enabled to determine the condition of the kidneys, from time to time, by microscopical showings, and to properly direct the mode of life and treatment, until the kidneys fully recuperated.

Seventh case: One of pulmonary tuberculosis. Patient had consulted a physician sometime before, and had been placed upon creasote in gradually increasing doses, and was told to take as high as forty drops three times a day until it commenced to disagree with him, then to change to carbonate of guaiacol. The creasote had been taken in large doses in milk for sometime, and, when I was called in, patient was taking the carbonate of guaiacol, without weighing it. He purchased it in bulk, and measured it in liberal doses. Patient presented every symptom of an acute nephritis from chemical irritation; bloody, scanty urine, pain in back, œdema, etc. Patient got out again after a long time, and died out West. This was a well advanced case of pulmonary tuberculosis, but I relate it as an instance in which occasional microscopical examination might have averted a grave complication. Doubtless, it would be wise to watch the kidneys carefully whenever any remedy is being pushed to the maximum dosage, or when it is prolonged for a considerable time.

Without further relation of cases, and in order to consume less time in the consideration of the uses and value of the microscope to the general practitioner, I select the following list of conditions and diseases in which the microscope can be most readily applied; the list is made from Saunders's Medical Hand Atlas of Internal Medicine and Clinical Diagnosis, by Jacob, in which book are microscopical illustrations in colored plates to serve as a guide.

Microscopy of the mouth and nasal cavities: Thrush fungus, spirochetæ of gangrenous stomatitis, diphtheria bacilli, etc.

Microscopy of Sputum: In asthma, in abcess of lung, in gangrene of lung, pneumococci in pneumonia, sputum from case of tubercular infection, from influenza infection, from actinomycosis infection of lung.

Microscopy of contents of stomach and intestines: Intestinal contents and infections, from cases of cholera nostras, from asiatic cholera, infections by amœba coli, etc., etc., ova of the following worms; oxyuris, trichocephalus, tænia saginata, tænia solium.

Microscopy of urine: The numerous crystals which have important significance in determining certain conditions, or metabolic errors, epithelia from bladder, pelvis of kidney, renal cells, pus cells from kidney differentiated from those from bladder and below, by their distribution, blood cells, spermatozoa, casts of different varieties of kidney lesions. Tubercular, gonorrhœal, and other infections of the genito-urinary tract.

Microscopy of the contents of cysts, abcesses, etc.: Crystals of uric acid from gouty nodule, which became cystic, echinococcus fluid, showing hooklets.

Pyogenic micro-organisms: Staphylococcus, streptococcus, bacterium coli communis, proteus vulgaris, bacillus of glanders, typhoid bacillus, etc., etc.

To this list, and these uses, might be added Widal's test, and other tests, made with the microscope. Also the determination of bubonic plague and yellow fever.

A good microscope, a book on pathological technique, and an atlas of colored microscopical illustrations, as guides, should enable even the busy general practitioner to add much to his thoroughness and his diagnostic ability.

DISCUSSION.

Dr. E. A. Jones: I thank Dr. Fonde for his excellent paper. Every practitioner can and should learn to use the microscope, and such an instrument should be an indispensable part of the office equipment of a doctor.

Dr. H. A. Moody: I think the author should be congratulated upon his paper. The microscope enables us to know what without it we could only guess. Many of our older colleagues shrink from undertaking the study of bacteriology. Even in such a case they should be armed with a microscope, leaving out the oil immersion lens, with its formidable looking accessories. An instrument with one-sixth dry objectice is cheap, simple, and will do blood and leucocyte counting, and all urinary, and most tissue work. That would be a long step for-

ward for many of us, and the rest would soon follow. I do not wish to be understood as deprecating the higher powers. For malarial parasites and bacteria they are indispensable. But, half a loaf is better than no bread, and for the timid and impecunious, the dry objectives of moderate power will suit very well, and do immense service.

Dr. E. C. Parker: I have listened to the paper with much interest, and appreciate the value of its suggestions. No man should engage in the practice of medicine without owning a microscope, and knowing how to use it. Without being a bacteriologist, a doctor can make the microscope of great assistance to himself and of great practical value to his patients.

AXIS-TRACTION FORCEPS.

By John Perkins Furniss, M. D., Selma, Ala.
Grand Senior Life Counsellor of the Medical Association of the State

For twenty years I have served as a member of the County Board of Medical Examiners, in charge of the branches of mechanism of labor and obstetric operations, and as a member of the State Board of Medical Examiners, in charge of the branch, mechanism of labor, for the past four years.

One of my duties, as a member of the State Board, is to review such portions of the work of the county boards as may be assigned me by the Senior Censor.

I have been impressed by the fact that not in a single instance has a preference been accorded the axis-traction forceps in any obstetrical condition.

I have, in times past, been in correspondence with eminent physicians at the centers of medical teaching, with a view to ascertaining the reason of the want of popularity of what appeared to me to be a most valu-

able appliance. Some replied that they considered the axis-traction forceps complicated and unnecessary, and that the conditions for which it was claimed that it was particularly adapted, could be better met and relieved by other procedures. For instance, for all conditions requiring delivery, where the fœtus was above the brim, the operation of safety, and election, was version. Others replied that all medium and low operations could be accomplished as well, if not better, by the classical forceps, and that this is particularly the case in medium operations where Pajot's manœuvre is all that can be desired.

Another eminent practitioner and teacher admitted that there were conditions where the axis-traction forceps was indicated, though they were rare. He said that, while many thought the instrument an obstetrical luxury, he believed the satisfaction the practitioner felt in having it in his possession was like that of a man in Texas or other frontier, who because he was there did not need a pistol, but when he did want it, he needed it badly.

In late text books, Jewett is more partial than any other I know of to this modification of the forceps. He devised one of his own, which he thinks obviates many of the objections to the Tarnier instrument, and embodies many excellent features.

He summarizes the superiority of the axis-traction forceps thus: First: "Pulling, as it does, directly in the line of descent, all the tractile force is utilized.

Second: "The blades being free to follow the natural movements of the head, the normal mechanism is not disturbed."

Dr. Simon Marx, of New York, has done more by contributions to periodical literature to call attention to the advantages of the instrument and improvements in the technique of its application and use than any one with whose writings I am acquainted.

He has had a very extensive experience in the use of the Tarnier instrument, and claims that he is in a position to call attention to its great scientific value. He considers its use the remedy in posterior positions of the head, whether of the occiput or chin, and that rotation can be assisted and expedited by it without injury to either mother or child.

I cannot say that my experience has been very extensive, but it has been equal to that of the majority of general practitioners.

For the past twelve years, whether in consultation or in personal practice, I have not used any other than the Tarnier, or some form of axis-traction forceps, except on two occasions, in one of which I had the most extensive lesion I have encountered.

I have time and again easily and safely effected delivery with one hand by the use of axis-traction forceps, where all the force it was considered safe to employ had been tried and failed to produce any result.

If it is true that, in the hands of a skilled operator, the ordinary forceps does not interfere with the natural movements of the head, then I confess that I have not attained the proficiency to place me in that class.

As a rule, no one can do good work of any kind unless he is accustomed to and familiar with the appliances employed.

The original instrument of Tarnier was unnecessarily large and heavy, and to some it appeared complicated. It has subsequently been modified and improved, and experience and familiarity with it will soon remove the objection of being complicated.

Having used the ordinary forceps the first twenty years of practice, and, in view of the favorable results obtained with the axis-traction forceps during the past fifteen years, I feel impelled to state my belief that the use of the latter constitutes as great an epoch in obstetric surgery as did the introduction of the original instrument by Chamberlain.

HEALING BY GRANULATION AND SKIN-GRAFTING.

By George Summers Brown, M. D., Birmingham.

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In considering the subject of healing by granulation it is obviously necessary to recall briefly the histology of the skin.

The skin consists of two principal layers:—the superficial or epithelial which is derived from the epiblast, and the deep layer or true skin which is derived from the mesoblast. The epithelial layer is made up of a superficial or corneous layer, called the Stratum Corneum, next a clear narrow streak the Stratum Lucidum, the Stratum Granulosum and the Stratum Mucosum or Rete Malpighii. Practically the skin consists of three layers:—first the corneous layer or cuticle, the dry scaly surface which is supplied with neither blood-vessels nor nerves; second the Rete Malpighii which is from one to five times thicker than the first and is the deeper, more actively functionating of the ephithelial layers, and rests upon and is intimately connected with the third, the Derma or true skin. These last send prolongations into each other in such a manner as to be really inseparable. The Rete consists of active living cells which are constantly multiplying and pushing the older ones towards the surface to become the lifeless cells of the cuticle. When a part of these cells are destroyed those remaining grow new ones to fill the place. The Derma or true skin consists of connective cells and stroma, white and yellow elastic fibrous tissue and muscle. When a part of it is destroyed it is replaced by white fibrous or scar tissue and never by anything else.

Healing by granulation follows in wounds in which there has been loss of substance, usually of the soft tissues. Death of a portion of the skin and underlying tissues is usually quickly followed by infection and separation of the dead portion, with accompanying inflam-

mation of the contiguous live tissue. When the dead portion has separated granulations spring up and the inflammation in a great measure subsides, though there is still an active warfare waged at the surface of the granulations between the leucocytes and the infecting germ. Beneath the surface, and seemingly stimulated thereto by the mild infection present, the connective tissue cells proliferate and form fibro-blasts and new capillaries. As the granulations mount higher and higher, the deeper of these fibro-blasts are gradually converted into white fibrous tissue. This white fibrous tissue knows but one law, and that is to contract. It is nature's principal healing agent. The belief is not uncommon that the edges of a wound through the activity of the epithelium gradually grow out, and ultimately cover the wound; and, indeed, this was certainly Reverdin's idea when he said that only the epithelium was of any use in skin grafting. But the fact is that the epithelium has a very limited power to reproduce itself, as any one can observe by watching the progress of the healing of an ulcer. He will see that the looser the skin is surrounding the ulcer, the quicker it will heal, because the skin will be the more easily drawn over it by the steadily contracting fibrous tissue beneath the granulations; he will also see that the blue line of the growing epithelium, after reaching a width of say a third of an inch, does not grow any more, but only seems to on account of the steadily diminishing size of the ulcer. This contraction of the firous tissue is aided very much by the very common practice of pulling the edges of the ulcer toward each other, by means of strips of adhesive plaster. This process is shown clearly in an amputation stump, where the flaps have sloughed, and left a granulating surface the size of the end of the stump. When this has healed, a linear scar is the result, and the stump is covered with not new skin, but healthy, normal, old skin, which has been pulled down from above by the contracting fibrous tissue beneath the granulations. When the ulcer is situated in a part where the skin is unyielding, the fibrous tissue cannot draw the skin over it, and it must remain chronic. Such an ulcer remains flat and glazed, and does not show lively, healthy granulations, because it has become so full of scar tissue that its blood supply is defi-

cient. Frequently it has remained long enough for a nerve supply to have developed in it, and then we have the unhealthy granulations sloughing away from time to time, and leaving these nerve filaments exposed, constituting an irritable ulcer. A bed sore over the sacrum or heel are common examples of chronic ulcers, owing to this unyielding nature of the skin in those situations. I have recently seen a very fine example of it in a crushing amputation of a great toe. The patient was a large negro man, and the toe sloughed at the metatarsal joint, leaving a very large ulcer, dependent for healing on the contracting scar tissue being able to pull together the thick skin of the sole and the tough parchment-like skin of the dorsum of the foot, which was only less thick than that of the sole. He would not have it skin-grafted, and the result was it took more than six months to heal.

While, then, the epithelium of the edges of an ulcer grows, to a limited extent, in its effort to heal the defect, the true skin does not grow at all, but is put upon the stretch and drawn over the ulcer by the contracting fibrous tissue. After the ulcer has healed, the skin around it, which has been on the stretch for so long, will be found to become more and more lax, and in time, will have resumed its normal texture. This shows that although the true skin does not grow from its edge, it does, when put upon the stretch, grow in its continuity by a process of hyperplasia, which answers the requirements for healing quite as well. This increase in the amount of skin by a process of hyperplasia, is well seen in all plastic operations, E. G. When the lower lip is removed for cancer or from trauma, and the skin of both jaws is slid down and brought together to make a new lip, at the completion of the operation the skin will be very tight in some places and puckered in others; but in a few weeks it will have become smoothed out, lax and pliable.

In wounds where, from any cause, contraction cannot take place, and in wounds where its occurrence threatens to result in deformity, and where scars have already resulted in deformity, we have a very efficient remedy in skin-grafting.

Reverdin, in 1869, was the first to read a paper on the subject of skin-grafting, and thereby established

the operation on a sound, scientific basis, though there have been found occasional references to such procedures as far back as the time of Galen. Notable among these historic curiosities are the spur of a cock, which was grafted on to his comb, where it is said to have flourished with more vigor than before; the nose that was slashed off in a duel, and which, after having been recovered from a dog that had run off with it, was stitched back in its accustomed place with more or less accuracy, and afterward thrived prodigiously; and the case of the surgeon priest, who, in treating a poor soldier who had lost a large osteo-plastic flap from the top of his head, skillfully transferred a like flap from the head of a dog to supply the defect. We conclude that this operation was eminently successful from the further information that the fathers of the church, in fear of the consequences of such anatomical miscegenation in the world to come, particularly to those who permitted it, ordered the enthusiastic surgeon to perform a second operation and undo his unholy work. The after history of this case, like all the fragments rescued from the twilight of tradition, is imperfect, and we really have nothing reliable on the subject prior to the classical paper of Reverdin in 1869. It has been claimed that Dr. Frank Hamilton, of New York, first suggested, in 1847, and performed in 1854, the operation of skin-grafting; but it is more than probable that he merely did an autoplasty; that is, he transplanted a flap with a pedicle from one leg to an ulcer on the other without any thought of its growing in true graft fashion over a wider area than it covered at first. At any rate Reverdin has all the credit, as he should have it, who first successfully promulgates a discovery. Reverdin's discovery that islands of epithelium sprang up where small particles of cuticle had accidentally fallen on a granulating surface, was the all-important one, and his method of operating was in exact imitation of this process. He said positively that the epithelium was the only part of the skin that could be useful for grafting; but this is now known to be very largely erroneous. Ollier, in 1872, began using pieces of the whole thickness of the skin of from a fourth of an inh to one inch in diameter; and in 1875 Wolfe, of Glasgow, conceived the idea (and carried it out) of covering a skin defect

with a piece of the normal, full thickness of the skin large enough to cover it. Thus many quickly recognized that the epithelium was not sufficient of itself to give good results. Then in a little while came Thiersch's discovery, which now answers almost every demand that is made in this field of surgery. There has been quite a large field of experimental research worked over since Reverdin's discovery in 1869, but I had neither the data nor the time and space to review it at all fully in this paper. The field comprehends many experiments upon the lower animals, and still more, perhaps, upon the patients of the experimenters; these include grafting and transplanting of almost every known form of epithelium and skin, such as E. G. dead epithelial flakes, like those Reverdin first observed growing accidentally upon granulating surfaces; then followed snippings of the skin, which were planted artificially in imitation of the first; these doubtless were more satisfactory, as in many instances they must have included a part of the true skin. Pieces of the skin of blisters, frog's skin, and the lining of egg shells, have been used, all doubtless with some degree of success. The Thiersch method is to shave off a part of the skin-thickness, say about one-half, cut in strips, and put on enough to entirely cover the defect. This, therefore, is not a graft in the sense that Reverdin meant, but a transplantation. Ollier's method is true grafting. Although he used pieces of the full thickness of the skin, he put them on expecting them to grow and cover the spaces he left uncovered. The Thiersch graft, however, is a term that has come to stay, and I have no desire whatever to suggest a change, if for no other reason than that it is really a graft, even if not in the sense Reverdin meant.

When this graft is cut the projections of the Rete Mucosa, which go down between the papillæ of the corium, are cut across and the deeper portions of them are left, from which new epithelium springs and covers the surface of the true skin remaining, thereby avoiding the contracting scar that always follows when the entire thickness of the skin has been removed. There are a few exceptions wherein the Wolfe method of transporting the whole thickness of the skin is best, as, for instance, the palm, or the chest wall, or other places

Healing by Granulation.

where the graft is to lie directly on the periosteum. The photograph here represents an instance of the kind. The young lady, whose hand is shown, had it caught in an ironing machine about two years ago, and sustained a very severe burn and crush, which, healing by granulation, resulted in a bad deformity that rendered her hand practically useless. Six months after it had healed I removed a piece of skin from the thigh and stitched it into the defect left in the palm after the scar had been removed, and the hand spread out. This defect was oval in shape, and two by three inches in extent, and crater like in depth, so that in order to make the transported flap stay in place at all I was compelled to go against the advice of all those who have advocated the operation, and fasten it in place with sutures. This I had no occasion to regret, as every suture held, and not one suppurated, and the result was perfect as far as the grafting was concerned. As none of these writers have given a reason for not using sutures, and as all such flaps can certainly be kept in place better with them than without, I am inclined to surmise that the objection to them is more imaginary than real, and may be based merely on a fear of keeping the detached flap too long exposed. A few minutes cannot possibly make any difference in the vitality of the flap, as it has been demonstrated experimentally that such pieces of skin may be preserved for days and weeks without suffering any apparent harm. The Wolfe method is much less likely to be followed by adhesions of the flap to the underlying periosteum than is the Thiersch method. In fact, the latter method is almost always followed by such adhesions, which become free only after weeks or months, and sometimes never. The Wolfe method is always free from the first, as Ollier claimed was the case with his small grafts of the entire thickness of the skin, to which, as I have said, he first called attention in 1872.

All flaps of this kind should be carefully dissected off entirely free from fat. It will be recalled that practically all the blood vessels of the skin proper run in a vertical direction, so that it derives its blood supply from the parts immediately beneath; hence when a flap is transplanted it is much more necessary that it should lie in close apposition to the parts beneath than that

it should be attached to the healthy skin by a pedicle. Indeed, it is very doubtful if a pedicle is of the slightest benefit in keeping a flap alive. When a flap is to derive its blood supply from a pedicle the subcutaneous fat should be dissected up with it. This is well demonstrated in the rather recent operation for making a new nose. In this operation a deep flap of skin and the underlying fat is dissected from the front of the arm, and left attached by a broad pedicle. This flap is then covered on its raw surface with Thiersch grafts, and allowed to heal. After a week or so this manufactured pendent organ is used to make the nose. I beg, finally, to call your attention to a point that has suggested itself to me, relative to the process of the growth of skin-grafts, which I have not seen alluded to by any of the writers on this subject. We agree, I will suppose, that skin put upon the stretch, and sutured so, will, in a short time, be found to have amplified and become lax; and again, that ulcers do heal by drawing the skin from the surrounding parts, and leave only a linear cicatrix and this without the aid of grafting or adhesive strips. It has occurred to me from a contemplation of these facts, that when, for instance, an Ollier graft of the full thickness of the skin is placed upon a granulating surface, and grows, it does so in the manner I have tried to show in the diagram. Imagine a healthy granulating surface upon which two skin grafts are growing, one, the epithelial graft of Reverdin, and the other the graft according to Ollier, consisting of the full thickness of the skin. The second graft sends out its blue line of new epithelial growth at the surface, and at the same time the connective tissue elements of the derma, or true skin, anchor themselves among the fibro-blasts, and deep fibrous tissue of the granulations. This makes an island in this sea of contracting currents, and the contractions which formerly set from shore to shore, tending to draw the edges of the ulcer toward each other, now set from the edge of the ulcer to the edge of the island, and tend to draw these toward each other; the result being that the edges of the island are pulled upon from every direction by this undertow of contraction, and the island graft grows by being put upon the stretch and a consequent hyperplasia of the cells of the interior. While this is going on beneath the sur-

face, the epithelial border of the island is making a great show of covering the ulcer. The deception is complete, because we see that the edges have grown some without doubt, and the graft is undeniably larger. We will see, however, if we take some land-mark near the edge of the ulcer to go by, that the blue line of new growth rarely ever gets beyond a third of an inch in depth, and yet the ulcer steadily grows smaller. Recurring to the consideration of the Reverdin graft, which was intended to be wholly epithelial, it seems to me that those that took successfully and grew were most probably not altogether epithelial, but contained a portion of the derma which was capable of forming a permanent connection with the scar tissue beneath. Before the advent of the Thiersch graft I have observed many times, after grafting a large surface with many small snippings after the Reverdin method, that some of them would grow, but that many of them after attaining the size of dime or less, would fall off in a most unaccountable manner. This I know was usually attributed to unhealthy granulations and infection; but I believe, in the absence of any better explanation, that these are purely epithelial grafts, and that they fall off because they have no means of forming fibrous tissue and becoming permanently anchored to the contracting scar with which nature remedies all defects in connective tissue, the reproductive power of epithelium being limited to a reproduction of cells of its own kind.

ADDENDUM—Since finishing this paper, two weeks ago, I have had another very interesting case of grafting, which I shall report briefly. Miss Z., aged 42, ten years ago, sustained a simple fracture of the tibia, and did not get a very straight leg as a result, though she had surgical attention. Two years ago the leg became painful and, she thinks, became gradually more bent, until, when she applied to me eight months ago, it was very much deformed, and of no use to speak of, as the heel was drawn up, and she could put very little weight on it. In July last I resected both bones of the leg, straightened it, and fastened it with a silver plate and screws. The bone was very soft where it was cut through, and when, for some reason, the skin wound

broke down, one of the screw holes became infected. Union took place promptly in the bone, but this screw hole, gradually, in the course of several months, became larger. This was caused, in part, by repeated curretting, done in the effort to make it heal. After exhausting all means at hand, I determined to skin-graft it. This I did eight days ago in the following manner: The bone cavity was as thoroughly cleaned out and disinfected as was possible, and then a flap, oval in shape, and one by one and a half inches in dimensions, was taken from the inner side of the thigh where the skin is thin and free from hair. This flap was then sutured to the skin around the hole, or rather at its four sides, and was then packed as smoothly as possible into the bone cavity, which was rather irregular in shape. This was dressed dry and left for five days. The condition then, and at the dressing two days later, seemed to be that the graft had taken well. The epithelium was macerated and coming away, as it seems to do always unless it can be kept perfectly dry, which, in this case, it could not be. I have never seen this operation alluded to anywhere that I remember except in a recent letter from my friend, Dr. Da Costa of Philadelphia.

THE WIDAL REACTION.

By Edgar Allen Jones, A. B., M. D., Birmingham.
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To the person who studies the mechanism, as it were, of immunity, immunization, and cure, in infectious diseases, nothing is more interesting than the consideration of those substances occurring within the bodily fluids of immune animals, which are included by Behring under the term "anti-bodies." The most important of these, according to Levy and Kemperer (1), are:

1. Alexins (Buchner)—Bactericidal substances.
2. Lysins (Pfeiffer)—Lysogenic substances.
3. Agglutinins (Gruber)—Agglutinating substances.
4. Antitoxins.

Gruber discovered that in the blood-serum of animals immune to cholera, typhoid fever, coli-infection, etc., there was a substance which was capable of causing the clumping—agglutination—of the bacteria causing the disease, when the serum and the bacteria were brought into contact. Widal applied Gruber's discovery, which had been used only as an interesting laboratory experiment, to the diagnosis of typhoid infection, and to him we are indebted for one of the most important discoveries of modern clinical diagnosis.

Dr. Wyatt Johnston, of Canada, has done a large amount of original work in America with this reaction, so that now his name is frequently associated with Widal and Gruber in the discussion of the subject.

The time at which the reaction develops is one of the most important points to be considered in arriving at a knowledge of its value. Widal and Sicard (2) hold that the reaction usually occurs on the first day of infection, but the statistics of other observers that I have consulted do not agree with this statement. Of 219 cases giving positive reactions out of 230 cases examined by McFarland and Anders (3), 128 gave the reaction prior to the appearance of the rose spots, or before the eighth day of the disease; 36 reacted during the second week; 45 between the seventeenth and twenty-first day of the disease; eight not until the twenty-fifth day; and two as late as the twenty-eighth day. (It must be noted, however, that in some of these cases the blood was not examined until the day mentioned, so that the reaction might have been present much earlier than it is shown in the statistics). Kohler (4) examined 62 cases. The earliest reaction was noted on the third day. Three of his cases did not show the reaction until the ninety-seventh day. Cave (5) reports the reaction in relapses as being intensely developed on the second day.

Is the reaction specific, and is it present in every case of typhoid fever? Stengel and Kneass (6) have tabulated 2392 cases of typhoid fever, in which the reaction

was positive in 2,283, and negative in 109; also 1,387 cases, non-typhoid, in which 22 reacted positively and 1,365 negatively. The results show:

Reactions in typhoid cases.....95.5 per cent.
No reactions in non-typhoid cases.....98.4 per cent.
Correct results in.....96.5 per cent.
Incorrect results in..... 3.5 per cent.

A. C. Abbot (7), in a collection of records of Widal reactions, carried out in 4,154 cases, found that the error had been 2.8 per cent. Cave (5) in a series of 32 cases, reports the reaction present in every one. He has never obtained the reaction except in actual or recent typhoid. Horton-Smith (8) reports the results of Widal examinations in 546 cases. In over 200 the subsequent course proved that they were not typhoid fever, and in only one of these was a positive reaction obtained. It was discovered after the death of this patient, that she had had typhoid fever four months before entering the hospital. Horton-Smith states that in about 3 per cent. of all his typhoid cases the reaction never appears, though he does not state the number of tests made, nor the length of time his cases were observed.

Persistence of the reaction. In a series of 30 cases examined by McFarland (3), the latest certainly positive reaction occurred after 8 years.

One objection, already mentioned, to the use of Widal's reaction in typhoid fever, is that it sometimes occurs in cases which are undoubtedly not typhoid. The normal sera of various animals possess the agglutinative power in varying degrees of strength. The sera of some animals will agglutinate typhoid bacilli in a dilution of 1:40. A few cases have been reported in which normal human serum has caused the reaction in as high a dilution as 1:10. Such cases as these, however, are exceptional. In all cases where the dilution has been sufficiently great, no such results are obtained. The technic is of great importance. The first point to be considered is the dilution of the serum. Nearly all reactions are now observed by means of the microscope, and only a small quantity of blood is required for each examination. Many methods of collecting the blood and diluting it, or the serum, have been used. Some of them are: The collection of one

drop of blood on a piece of paper, or tinfoil, and allowing it to dry; collecting the blood in tubes and allowing it to coagulate and expel the serum; diluting the blood in a fresh condition with blood-counting pipet, or variously devised pipets. The disadvantage of the dried-blood methods is the inaccuracy of the dilution, as it can at best be only approximately accurate. A serious fault with the dilution of the fresh blood is the presene of the orpuscles. A device which is quite simple, which was shown me by Dr. Lupton, of Johns Hopkins, avoids both of these troubles. It is easily made in a minute or two by any one who can get a suitable piece of glass tubing, and a bunsen flame, or alcohol lamp. The device furnishes a chamber in which the blood coagulates, a pipet to measure the serum from the coagulation chamber, and also a pipet for measuring the diluting fluid. The two pipets are of the same diameter, hence the drops of fluid which they make will be of the same volume.

The culture should be young, and actively motile. It is best obtained by growth on agar-agar for 18 to 24 hours. Older cultures will do if young ones are not available.

The following is the technic followed by me and taught to my students: Take one loopful of the growth on agar-agar of 18 to 24 hours old typhoid culture, and distribute thoroughly in 10 to 15 drops of sterile bouillon in test tube or watch glass. Experience teaches just how much cloudiness of the bouillon is necessary in order to procure good separation of the bacilli. A hanging-drop of this mixture is now observed, to ascertain whether the germs are well distributed and active. The dilution of serum is the next step. First, one drop of serum is allowed to run from the coagulation chamber into a clean test tube, and four drops of clean water are added from the diluting pipet; this gives a dilution of 1:5. One loopful of this serum-mixture is now added to one loopful of the bouillon mixture of bacilli, giving a dilution of the serum of 1:10. This mixture is examined in hanging drop. Second, to the tube containing the serum diluted 1:5, 20 drops of water are added, making a dilution of 1:25. One loopful of this is mixed with one loopful of the bouillon mixture of bacilli, giving a dilution of 1:50. It is cus-

tomary to observe the dilution of 1:10 for 15 to 20 minutes; the higher dilution is observed for one hour.

In order that a positive reaction may be reported, it is necessary that the bacilli cease moving and agglutinate. Cessation of movement alone, or clumping alone, justify only a "suggestive" report.

It is the general concensus of opinion that the serum should be diluted at least 1:40 or 1:50.

It seems probable that the reaction will never become very popular among physicians outside the hospitals or large cities affording clinical laboratories; for, while the technic is not difficult, it requires a certain amount of laboratory training, and also a fairly well equipped laboratory.

I can do no better, in giving the conclusions as to the value of the Widal reaction in typhoid fever, than by quoting the deductions of McFarland and Anders:

"1. The disease is not to be excluded on account of the absence of a positive Widal reaction, since genuine cases have been met with in which a negative result had been obtained throughout.

"2. All cases that react positively are to be regarded as typhoid fever, until a thorough bacteriologic examination fails to reveal typhoid bacilli anywhere in the body, as cases occur in which the usual enteric lesions are entirely wanting.

"3. Taken singly, the sero-reaction is the most trustworthy indication of typhoid fever.

"4. Although not an early diagnostic symptom, it nevertheless serves to *complete* the diagnosis in the great majority of cases at the earliest date possible.

"5. Since the sero-reaction may be long delayed, and very exceptionally absent throughout, it cannot solely be relied upon for therapeutic purposes.

"6. Previous attacks of typhoid fever within 1 or 2 to 3 years, render the test valueless.

"7. In order to secure accurate results, the technic is to be carried forward by a trained bacteriologist."

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HYDROCEPHALUS, ITS ETIOLOGY, AND A CURATIVE OPERATION BASED THEREON.

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The discussion of the subject will be confined to that variety of the disease most often seen and known as Hydrocephalus Internus.

The morbid process in this disease is usually chronic in character, but often takes on a sudden and very acute form; is nearly always congenital, though it occurs, even in adult life, as a sequel of meningitis, of syphilis of the membranes, etc., more frequently than is supposed by members of the profession who have devoted little or no study to the subject.

For obvious reasons, cases of the latter kind will not be embraced in this article. Hydrocephalus Internus is an over-accumulation of fluids within the ventricles of the brain, due, not to over-production, but to the want of means of escape.

All serous structures secrete serous fluid, and it naturally follows that this secretion must, when it reaches the physiological limit, escape by some avenue, or, else, such structures as the ventricles of the brain will become over-distended with their own production.

Leonard Hill demonstrated by experiment that a direct connection exists between the pressure of the cerebral fluid and absorption by the veins of the cerebral membrane, that is, a ratio of equalization becomes

established, by which the cerebral structure is protected from the evils of undue pressure. But, of course, this can only occur when the excess of fluid producing abnormal tension has access to the membranes in which are the veins.

A number of pathological lesions may, and occasionally do, cause hyphocephalus by closing the foramen of Majendie and the apertures of Mierjejewski, but such cases, in advanced childhood and adult life, always result from previous, definite, and, very often, recognizable disease. The hydrocephalus of infancy, sometimes originating before birth, often congenital and manifesting itself early after birth, or beginning under three years of age, will be discussed.

Bruce and Stiles reported, in March, 1898, that in, practically, all cases of hydrocephalus Majendie's foramen was closed and, also, every other channel through which the cerebral fluid in the ventricles might reach the sub-dural spaces.

Watson, Cheyne, and Sutherland have, by post-mortem examinations, ascertained the same fact; they have also discovered that the foramen of Munro might be occluded. At the same time, they found in nearly all cases an absence of diseased conditions of the membranes themselves, and, also, an absence of the normal amount of sub-dural and sub-arachnoidal fluid, though the ventricles were enormously distended.

Guided by the theory of Leonard Hill, fortified, as it was, by their own post-mortem discoveries, they determined to operate on an infant with a tremendously enlarged head, their purpose being to establish an opening between the lateral ventricles and the sub-dural and sub-arachnoidal spacs.

Their first operation was upon a six months' old infant, and was executed as follows: A curved incision, an inch and a half in length, was made over the left lower angle of the anterior fontanelle, embracing the skin and other tissues, down to the dura mater. This flap was turned down and, then, a small incision, one-fourth of an inch long, was made in the dura. No sub-dural fluid was present; a number of fine cat-gut strands, about two and a half inches long, were grasped with a pair of smooth, small, forceps, and pushed about an inch backward between the dura and the arachnoid,

while the other end was caught by forceps and pushed through the cortex of the brain into the lateral ventricles, when a clear fluid escaped in large quantities. The dura was sutured and the flap stitched back in apposition; dressings were applied, and the wound healed in six days. There was over-lapping of cranial bones, due to the escape of the large accumulation of fluid in the ventricles.

This fluid must have been absorbed, as Leonard Hill says, because the wound had healed in six days, there being no other way of escape.

This child did not improve otherwise than from symptoms of extreme pressure, died three months later from basilar meningitis, but an asymmetry was noticed, the left side being somewhat the smaller.

They operated on a second case, with the same result as to decrease of fluid; the same asymmetrical condition was noticed, and they did a similar operation on the right side, which showed that it was necessary to drain both ventricles. This child was cured of hydrocephalus, but its mind remained hopelessly impaired.

I was impressed with the result of these operations, and was convinced that they rested upon a correct and logical basis.

I determined to do the operation whenever a suitable opportunity arrived. In July, 1899, I was called to see an infant, two months old, born at seven months, had been artificially nursed, and was suffering from gastro-intestinal disorder of rather severe type.

The parents had not noticed any symptoms indicating trouble of a hydrocephalic nature until one month prior to the date of my visit, yet, so rapidly had the disease progressed that when I saw the child the head was enormously distended, the bones were widely separated, and the pressure was so great that there was marked exophthalmos and total blindness. High fever and great restlessness were present; in fact, the child's condition was extremely critical.

I made one curved incision, connecting the points of the lower external angles of the frontal fontanelle, instead of making two separate incisions, and turned the single flap down just far enough to give room for the other steps of the operation. I then made, on one side at a time, an incision nearly one-half inch in length, through

the dura mater, introduced three or four strands of No. 0 cat-gut beneath the dura, about an inch, and then pushed the other ends of the ligatures through the cortex into the lateral ventricles.

There was no fluid in the membranous spaces, but when the forceps, carrying the ligatures, penetrated the ventricles, the fluid gushed up like an artesian well.

I closed the membrane, sutured the flap in position, and applied gauze dressing and bandages. The fluid continued to escape for three or four days. In a few hours after the operation, the bones of the head would meet, the child regained its sight, and the pressure symptoms were relieved. This improvement continued for six or eight weeks, at which time it was noted that the head began to enlarge again. This enlargement progressively increased until November 20th, when I was called to Pensacola, Fla., the home of the child, and performed a second operation. The child's condition was as critical as at the time of the first operation, except there was no fever.

I could account for the re-accumulation only from failure to establish a permanent opening between the ventricles and the sub-dural spaces, a result due, no doubt, to too rapid absorption of the very small ligatures which I used in the first operation. I, therefore, decided to use five strands of No. 2 cat-gut. I modified the scalp-incision, because I saw no reason for such a large flap. I made a straight incision, one inch long, over the lower external angle of the frontal fontanelle, down to the dura, incised that one-third of an inch, and inserted the ligatures of No. 2 cat-gut just as was done in the first operation.

There was, again, an entire absence of fluid in the sub-dural spaces, but the fluid welled up as freely as before when the forceps penetrated the lateral ventricles. The dura was sutured, the scalp-incision was snugly closed and dressed with gauze and aseptic collodion. There was no escape of fluid through the closed incision. When the child came from under the anæsthetic the sight was found to be restored, as before. The head has never since become enlarged from over-accumulation of fluid. The bones are still separated along the sutures and the fontanelles are unclosed, but there is positively no undue distension. The child was

nourished after this last operation by a wet nurse, which markedly improved its digestion and assimilation.

The health of the child is now perfect, its mind as bright and good as that of any child of its age, its body well developed, though the muscles of the lower extremities are somewhat below par from non-use, and there is such improvement as to justify the hope of perfect recovery. In every other way the child exhibits evidences of perfect health, and bids fair to become as vigorous as other children less fearfully afflicted at the beginning of life.

No other surgical procedure has accomplished enough in these cases to justify its repetition, or to win a recognized place in surgery.

All other methods have been based upon empiricism.

This operation produces no disturbance, is, in proper hands, free from danger, and corrects an abnormal condition, thereby removing the cause of the disease and rendering cure possible.

Inasmuch as simple tapping or mere draining of the fourth ventricle and the later procedure of lumbar puncture have all been tried and found wanting, and even positively dangerous, there is unquestionably a brilliant future for this operation.

To gain, however, the full benefit of it, the operation must be done early, for, the chances of restoring the mind decrease with each week of delay in removing the pressure upon the cerebral structure.

SOCIAL SELECTION.

THE EXTIRPATION OF CRIMINALITY AND HEREDITARY DISEASE.

By John E. Purdon, M. D.

A Sociological Branch having been voted on and adopted at the last general meeting of the Tri-State Medical Socitey of Alabama, Georgia, and Tennessee, held in Chattanooga in October last, the President was

good enough to nominate me as one of the committee to bring the question of the intimate relation of medical and sociological matters before the members of the profession in the State of Alabama, with the view of securing their coöperation and support of the action of the Tri-State Society. Although I represented to Dr. Kime that I was not at present a resident of the State, he was desirous that I should still continue my connection with the committee, and with this excuse for presenting my views before you, and soliciting the forbearance and good will of my old associates, I venture to make a few introductory remarks on this important innovation.

The subject of the marriage of criminals, epileptics, lunatics, consumptives, etc., being one of surpassing importance to the welfare of the race, and one that the Tri-State Society wishes to treat from the most comprehensive point of view, I would suggest that marriage be first considered in its highest significance. I will add, however, that the Tri-State Society is in no way answerable for my personal opinions or method of treating the problem.

Marriage is a failure, if regarded from the point of view of a mere sex congress.

Satiety is the natural outcome of animal indulgence. It is an abuse of language to term such relation, marriage; for its true definition is the physical, social, and spiritual union of a man and a woman, who remain true to each other, in the hope of becoming one in God, when their executive function in the process of creation has faded away and a larger field is opened up to their expanding powers of thought, and their appreciation of the universal nature of life.

The great source of danger in the present day is undue haste: Marry in haste and repent at leisure—is truer now than ever. Unless a man and woman give themselves time to study each other's character there is always danger of a false judgment, based on passion. And, besides a reasonable time for the exercise of a more matured judgment, absence is a necessary factor to prove that the impression made in either instance is deeper than the surface.

The more high-strained and nervous the subject, the greater the danger in a quick choice; for the easy

temperament, that soon comes to regard marriage as an affair of housekeeping, will submit to the disappointment of ideals that will be gall and wormwood to those in whom the ideals still survive, in spite of all disappointment. Self-respect, that regards with horror the violation of what it deems most sacred in its relations with another, is the true guide in the choice of a partner.

The man or woman who knows that to meet and then to part leaves an indelible stamp of degradation on the soul, will always be careful not to run such a fearful risk; but the light o' love that will meet and part, with a bow and an apology, or with a frown and a curse, is equally insensible to the true import of marriage. The religious sanction, in addition to the legal contract, is essential to the full realization of its significance.

It will be thus seen that I draw a distinction between marriage in the higher sense of the word, and mating or pairing, which is essentially an animal function, and one which should be so understood and confined to its proper terminology. All right-thinking and right-speaking persons should strictly confine the term marriage to the human race; for only then is its spiritual import developed on an ascending scale.

It is hardly necessary to say that the following suggestions have nothing to do with the life and conduct of those who, being blessed with the gift of continence, supported by strong religious or ethical convictions, voluntarily segregate themselves and lead a celebate life from choice—a noble choice—that we see so often exemplified in the cases of those, who, for the benefit of others, on account of social or family reasons, lead lives of self abnegation. These individuals are a law unto themselves—the law of the kingdom of God—and need no legislative interference. It is only out of respect to this class of the community that I make reference to them at all, for the purpose of guarding against possible misapprehension.

This being understood, the fundamental thought of marriage should be the improvement of the race, individually and collectively.

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This being understood, the fundamental thought of marriage should be the improvement of the race, individually and collectively.

If, now, it is an established fact that persons with diseased organisms generally have children whose bodies have a greater tendency to imperfection than

persons of a high class vitality, it simply becomes a question as to where the line should be drawn which places a legal barrier between the union of the sexes, if the improvement and stability of the race has a more imperative right than the self-will of the individual.

I consider that I have had experience enough, professional, philosophical, and social, to justify me in the opinion that the day is already at hand when such a line should be drawn, and such an ordinance of restriction laid down. It is a proved fact of experience that the inveterate criminal tends to propagate a race of criminals, and that the undeveloped or degraded nerve-tissue will duplicate itself in the next generation, as illustrated by the well-known cases quoted in books on criminology.

Now, what is true of one form of degraded nerve tissue, is true *ceteris paribus* of all kinds of nerve tissue.

It does not, however, follow that exactly the same anatomical imperfections will repeat themselves immediately; for a wide range of disorder must be allowed; as when insanity, epilepsy, and consumption are different manifestations of the original ancestral weakness. Nevertheless, it is a physiological and psychological axiom, that weakness begets weakness, and necessarily tends to its own elimination, sooner or later, in the struggle for existence, when the weaker must go to the wall.

But, as natural selection has added factors for the modification of the species in the progress of human development, founded upon moral and altrustic grounds, whereby the process of extinction of the weak and bad is arrested and delayed for an indefinite period, the ultimate good demands, on the other hand, that these preservative powers, which assist the imperfect individual to escape the consequences of his physical and moral malformation, should not be encouraged by a feeling of sentimentality, which would sustain the individual right to propagation of the species to every man and woman, however degraded.

It goes without saying that when so tremendous a restriction of the rights of the individual is imposed as that of depriving him of the right to gratify the primal instinct of reproduction, safeguards of the most inviolable nature should be thrown around the in-

dividual whose rights are so threatened.

The right to guide the process of *social selection* should not be entrusted to the private judgment of any man or woman.

It is essentially a state function, and one which the state should guard with the keenest jealousy. The main fact, however, with which the social reformer is first concerned, is the imposition of the actual restraint.

Here I at once take the ground that when a permanent restriction is imposed upon the pro-creative powers the organic basis of the function should be destroyed, otherwise it remains as a perpetual source of misery and irritation, mental, moral, and physical, to the unfortunate recluse.

The *immediate plan* for the extirpation of crime and nerve disease should be resored to in the interest of all parties. The loss to the community of its workers is thus minimized, and the State may still give and take, where the family, in its essential aspect, has ceased to exist.

Emasculation is the simplest and most perfect plan that can be adopted to secure the perfection of the race. In the first instance, only those whose defects are most pronounced would be subject to this treatment, but, ultimately, as a higher standard of mind and body would be attained, the tendency to degradation would be nipped in the bud.

Social selection would, of course, operate in the case of women as of men, unless some method of blighting should be discovered, which would obviate the intervention of the surgeon.

I need not say that the part played by the members of the medical profession in this coming revolution will be very important, for, indeed, it will call for a special class of experts in nervous diseases and criminology, whose treatment, in the first instance, and whose evidence, afterwards, will help to assist in adjudicating doubtful claims to survival.

As the finger of progress most undoubtedly points in this direction, the practice of the eradication of the diseased units of the community, which, at its first suggestion, must inflict a tremendous shock upon the ordinary members of the work-a-day world, will be justified by an immediate appeal to common sense, as

supported by the most exact and far-reaching scientific generalization.

The germ theory of heredity supplies very strong arguments in favor of the selective and protective plan proposed for the uplifting of the animal side of the race, and, with it, the true object of its existence—the spiritual development of man.

A certain specific plasma is differentiated from the rest of the living elements for the purpose of continuing the species, so that the social organism would tend to become, like the animal body, differentiated by a division of labor and function, so as to produce the highest excellence of which the genus man is capable, and, with that, the manifestation of the life of the Eternal Power behind phenomena, to an unthinkable degree.

But the germ plasm theory teaches us the great lesson, how it is that the *materics mali* may lie latent and appear after generations to vitiate the offspring of a stock that is otherwise well and harmoniously developed, mentally and physically. It is needless to enlarge upon this point.

But let it not be objected to these remarks that the law of natural selection, derived from the study of the animal world and the lower forms of life, tends to degrade the race of man by application to its improvement, and by implication, the Supreme Being, whose manifesting creature we alone know man to be.

Such is not the case. Truth never degrades, and wherever true principles are applicable, there, the light of God's revelation must shine, only waiting for its correct interpretation.

No one who calmly and dispassionately considers what is here advanced can fail to perceive that the goodness, the greatness, and the happiness of all upon the earth, will be immeasurably advanced, in one or two generations, by the proposed methods.

Already we see the effect produced by the emancipation of woman from the traditions of the past, when, as she comes to be self-supporting, the secondary principle of sexual selection tends to have a fairer field for its expression, as a moulding factor in development. Many are of the opinion that women will, in the future, marry less frequently, having better opportunities of

pleasing themselves, either in the choice of a husband, or in the adoption of a single life.

The proposed system of social selection would be of great advantage, in a minor degree, as a represser of crimes of a certain kind, notably those of assaults on women and children by the animalized negroes, and, too often, whites also, who, at present, pay the penalty of their impulsive acts at the stake or by the rope and bullet.

I am morally convinced that the knowledge that he would go about among his fellows as a marked man, would have a far *steadier* controlling influence on the negro rapist than any appeal for mercy on the part of his victim, or fear of the vengeance of the mob, on his own part, would be likely to effect.

But such a repressive power on the propagation of crime or disease would be only secondary and indefinitely small compared to the radical method proposed. Repression is not eradication. The latter is a *certain* method of improvement which commences to bear fruit from the moment of its inception.

It is advisable to refer to the curative influence, with which both direct and hypnotic suggestion are credited in changing the immoral and criminal tendencies of the young. Character is the descriptive summation of conduct, and conduct is the outcome of structure in connection with inherent guiding principles, however administered. We are all creatures of habit, and from the lowest to the highest, we may say that structure is the crystallization of habits; for habit and function are only different terms for vital activities. If there be not that within a man which, when once roused, can continue to be self-sustaining, but must ever require the spur or the restraint of external influence, the vital activities should not be granted indiscriminate freedom, for the inherent vitality is unstable, and makes for destruction.

If, then, hypnotism, or other nervo-psychic influence, have only a temporary effect, it is useless, and should be abandoned, after fair trial, to give way to more drastic treatment. In other words, if hypnotism cannot modify structure, (not necessarily immediately), it is useless for the eradication of criminality or disease. This is the matter in a nutshell.

As the transmission of acquired habits is denied by

a great school of biologists, we see that, granting nearly everything that is said as to the beneficial influence of hypnotism on the character of the individual, it by no means follows that the improvement thereby acquired, *even if permanent*, would, in itself, be a justification to his claim to remain free from the operation of social selection.

The forced state of the nervous system, due to the counteracting influence of an acquired habit, may be compared to the coiled spring, whose potential energy for evil is restored in the next generation, when the controlling power, which damps some of its inherent specific vibrations, is absent. This disposes of the sentimental argument of the hypnotists sufficiently for our purpose.

Now, one word, in conclusion, with regard to the injury inflicted on the individual by the destruction of the right and power to pro-create his species by the will of the majority. No one can claim as a right the power to do injury to himself, much less to another. Just as a man or woman has no right to destroy their yet unborn infant, so, also, have they no right to beget a child that will surely tend towards evil or unhealthy courses, that must result in misery and suffering to the child himself, and to the body politic with which he is associated.

Some of the best and highest men and women have led pure and single lives; so that no moral evil is inflicted, where desire is the only ground of justification for indulgence on the part of criminal and diseased men and women.

INFLUENZA.

By W. W. Harper, M. D., Selma.
Member of the Medical Association of the State of Alabama.

Influenza is an acute infectious disease. According to Peter Eade, it "is primarily a local parasitic disease of the mouth, throat, and bronchial tubes, due to the bacillus of Pfeiffer." These bacilli are found in the sputa, and are highly infectious, the disease in epidemic form being rapidly conveyed from one locality to another.

The symptoms that I shall describe are those that have been observed by me during the recent epidemic. While the bacilli seem to have the entire human economy for their sphere of activity, there are three systems to which they send a surplus of their manufactured products—toxins. These systems are:

1. Nervous.
2. Respiratory.
3. Gastro-Intestinal.

In the nervous type, the onset is usually sudden, with a chill and marked elevation of temperature; there is intense headache, and pain in the back and limbs. In a few days the temperature subsides, and the pains disappear. The patient thinks he ought to be well, but is impressed with his weakness. The prostration is out of all proportion to the severity and duration of the attack. This depression persists for quite a while after the patient is apparently well.

In the respiratory form, there is often the initial chill and rise of fever, with symptoms of an acute coryza, intense sore throat, and some bronchitis. With the exception of a supra-orbital pain, there is not much aching.

Again, the brunt of the poison is borne by the gastro-intestinal tract. Here we have every grade of gastric irritation, from a simple gastralgia to the most intense

nausea and vomiting. I have recently had a patient who, for five consecutive days and nights, vomited twenty to thirty times in the twenty-four hours. The stomach refused absolutely to retain anything, and the patient was brought to the stage of collapse before relief was obtained. There was no fever. The poison may affect the intestines, giving a simple diarrhœa or dysentery. In all forms, the prostration is out of all proportion to gross lesions presented. Unfortunately, the people underestimate the gravity of grip, and, when attacked, continue at their business until their energies have been sapped, and their resistive powers are gone, or they leave their beds before their vital forces have been fully restored to power. As a result, relapses are frequent and more severe than the initial attack. Forcheimer calls attention to the fact that, in children, the cough of influenza very closely simulates that of whooping cough. My experience in a limited number of cases bears out this statement.

There is probably no other disease with so many complications and sequelæ. Pneumonia and pleurisy are the most constant. Grippal pneumonia is noted for its indistinct physical signs, irregular course, and particularly fatal issue. In children, the pneumonia is generally lobular, and runs a very severe course. The pleurisy usually becomes purulent. During the past epidemic, I have seen a number of cases of aphthous stomatitis among children—also a number of cases of enlargement of the cervical glands. These glands do not, as a rule, break down unless the subjects have a strumous diathesis. Another serious and common complication in children is suppurative otitis media and mastoid involvement.

Recently, I have seen two cases of acute mania during an influenzal attack. Both cases occurred in old asthmatics. The first case was restless and delirious for several days preceding the mania manifestations. During one of his spells, he arose from his bed, dressed himself, went to his store, transacted some business, came home, and in twenty hours was a corpse. The other case went into a deep sleep, which lasted for several days. She could be awakened, but would at once go to sleep again. After several days of sleep, she was seized with acute mania. She fully recovered her

mind in from seven to ten days. I have seen one marked case of acute thyroiditis complicating grip.

The sequelæ of grip are many. During the past ten years a very large per cent. of the cases of consumption give an antecedent history of influenza. Again, patients present themselves with the following history: Marked exhaustion after slight efforts, dyspepsia, headache and ocular disturbance. An examination shows the grip toxin to have crippled the heart or kidney. A recent editorial in the Therapeutic Gazette calls attention to the very great increase of heart disease as the result of grip, and the secular press is daily recording sudden deaths following an attack of influenza. A few weeks ago, I was consulted by a lady for a tremor of the hand. A diagnosis of disseminated spinal sclerosis was made. She dated her trouble from an attack of grip.

Treatment. Let there be reported a few cases of yellow fever and the people are panic stricken and flee to some city of refuge; but influenza has no terrors for them. And yet it is a greater foe, for, while yellow fever has slain its thousands, influenza has slain its tens of thousands. It is a disease not indigenous to our soil, and I think it is high time that our sanitarians were putting forth more vigorous efforts to suppress its existence and effect its banishment. If we are to accept the views of bacteriologists that it is at first a local parasitic disease of the throat and the mouth, I believe its spread can be lessened by the free use of antiseptic sprays and mouth washes; and by instructing patients to spit into vessels containing a germicide, or into cloths that can be immediately burned.

When called to a case, the patient should be urged to go to bed and remain there until entirely cured. The bowels should be freely opened with a mercurial purge, and the following alkaline diuretic given to increase the elimination of the poison:

℞ Kali Cit.....gr. xx
Spt's Ether Nit.....gtt. lx
Liq. Ammon. Acet..... f ʒ ss
M.
S. Every three or four hours.

For the pain I give the following:

℞ Codeina Sulph..... gr. i
Salol.....gr. iv
S. Every three or four hours.

The codeine neither constipates nor nauseates. Where the coryza symptoms predominate, I give,

℞ Codeina Sulph.....gr. i
Phenacetine.....gr. ii—iii
Camphor.....gr. i
Ext. Belladonna.....gr. ⅛

M.

S. Every three or four hours.

Most writers condemn the use of opiates and their indiscriminate use is to be avoided, but where there is much pain their use is indispensable. For the harassing cough nothing is superior to codeine in ½ to 1 grain doses. For the intense sore throat it is recommended that it be douched by a fountain syringe with a quart of warm water in which is dissolved two teaspoonfuls of chlorate of potash and 5 drops of oil of peppermint. To this douching can be added inhalations of tinct. benzoin co. In children, the naso-pharynx should be frequently sprayed with Dobell's solution, bearing in mind the peculiar tendency of grip inflammation to extend up the Eustachian tubes, and produce suppuration in the middle ear and the mastoid.

For the supra orbital pain, due to congestion of the frontal sinuses, drachm doses of ergot, every four hours, is the remedy par excellence.

Grip pneumonia calls for free use of oxygen and the unstinted use of alcohol. The stomatitis seen in children is best treated by mouth-washes of hydrogen dioxide, and the application of lunar caustic to the ulcers.

The diet should be liquid and the feedings given at regular intervals.

As influenza is a disease attended with great nervous depression, strychnia should be given early, and continued for a week after the attack is over. The writer gives every two to four hours 1-60 to 1-30 of a grain.

PNEUMONIA, ITS OCCURRENCE IN PREGNANT WOMEN, WITH REPORT OF FOUR CASES.

By Joseph H. Edwards, M. D.,
Member of the Medical Association of the State of Alabama.

Notwithstanding the fact that the cause of pneumonia is known, and the disease has been often discussed, it still remains one of the most fatal with which we have to contend. The local manifestations in the affected lung are attended with a series of distressing and dangerous clinical phonomena which tax the constitution of the patient to the utmost. No known treatment prevents or shortens the process, checks the local spread, or hastens resolution in the part affected. When recovery takes place it is complete. The lung is left in the same condition as before the attack. The inference, then, would be to let Nature take its course, but this conclusion is incorrect. It is the possible complications of the disease that we are called upon to treat. The exhaustion of the vital forces, the heart, the intensity of the invasion, the hyperpyrexia, degree of distress, and the previous condition of the patient; all demand attention.

It is of the concurrence of pneumonia with pregnancy that I wish to speak particularly.

Pneumonia occurs less frequently in women than in men, but is more fatal to them, probably because of their delicacy of constitution.

When pregnancy complicates the disease, the dangers seriously increase. The vital forces, already taxed by the condition of the woman, are often unable to cope with this deadly foe to human life. But much can be accomplished by constant, intelligent, unremitting care.

The principal symptoms that demand attention are hyperpyrexia, pain, dyspnœa, cough, expectoration, pulse rate, restlessness, insomnia, delirium, and prevention of abortion.

In hyperpyrexia, remedies whose secondary effect may be prejudicial, should be avoided. Coal tar derivates come under this head. The external application of cold is by far the safest and most satisfactory antipyretic measure. For this purpose cold compresses, the sponge bath, or the ice-bag applied over arteries at their most superficial points, will be found useful.

The tub bath should not be used. Baruch (1) speaks highly of compresses wrung out of ice-water and applied when the temperature is over 102 degrees, and when there is general infection and marked evidence of toxæmia. Otherwise, the compresses are not indicated. They are used, not only for their effect on the lung, but also for their influence over the heart, general circulation, and nervous system.

Pain, which is sometimes agonizing, and aggravated by cough, may be alleviated by poultices, hot turpentine stupes, or cold applications. Sometimes a small dose of morphine, or codeine phosphate, guarded, if necessary, by strychnine, induces a sense of comfort and relief. I prefer the codeine to the morphine, as less apt to check normal secretions, a condition to be avoided. Cardiac and respiratory stimulants are often necessary soon after the onset, and invariably before the second day. Whisky, strychnine, nitroglycerin, digitalis, caffeine, or oxygen, may be used. Dyspnœa may be relieved by proper ventilation, a measure sometimes overlooked. As a help to maintain the respiratory mechanism, ammonium carbonate is useful; but strychnine, hypodermically, is our most valuable medicinal agent. The hacking cough, often so troublesome, may be relieved by morphine or codeine. Rest should be as absolute as possible. The patient must not rise to relieve the bowels, but must use the bed-pan. In addition to the relief afforded by the measures above mentioned, the patient's comfort will be increased by cleanliness of her person, and attention to the condition of the room and the bed. If the insomnia is troublesome, chloralamid, sulphonal, Dover's powders, or codeine, guarded,

if necessary, by atropine and strychnine, may be used.

Chloral, with digitalis, is highly recommended.

Delirium is a grave symptom, especially if it occurs late in the disease, and is often indicative of alcoholism, declared or secret.

Cold applications to the head, careful feeding, and the proper use of alcohol may relieve it. If they fail, chloral, potassium bromide, morphine or codeine, may be used with proper precautions.

The bowels, kidneys, and skin should be carefully watched. A wineglassful of Hunyadi Janos water every three hours has a desirable effect on both bowels and kidneys. The following prescriptions act as mild diaphoretics, diuretics and febrifuges:

Potassii Cit.....gr. xx.
Liq. Ammon. Acetat.....ʒ ss.
Aq. Chloroform, q. s. ad.....,....ʒ i.

S. Give every six hours.

Or—

Tr. Aconiti.....Min. i.
Tr. Gelsemii.....Min. v.
Spts. Ether. Nit.....Min. xx.
M.

Sig. Give every three or four hours.

Diarrhœa should be guarded against, as it is liable to prove a grave complication.

If abortion threatens, absolute rest must be enforced.

The patient should not be allowed to rise for any purpose, and no one but the nurse should stay in the room. Opium, in some form, is the sheet anchor in this emergency. Rectal suppositories, each containing one grain of the aqueous extract, may be used every four to six hours. For severe pain, morphine should be given hypodermatically. If hæmorrhage occurs, cold cloths cautiously applied to the vulva may be used. If the abortion takes place ergot should be given every three or four hours in half dram doses, and if the bleeding is profuse, the vagina should be tightly packed with iodoform gauze, which can be left in situ. 24 to 48 hours. If much blood is lost, hypodermoclysis should be resorted to. Dr. Cunningham introduced its use in pneumonia, during the epidemic at the Pratt City Penitentiary Hospital, with marked success and is entitled to priority for this most useful procedure in croupous pneumonia. Penrose (2) says it di-

lutes the toxins in the blood and produces their elimination through the sweat glands and kidneys. It relieves the delirium, lowers the temperature, stimulates the heart, lowers the respiratory rate, makes breathing easier, and renders the patient more susceptible to the influence of oxygen. I used it in one of the cases herein reported. The patient died, but had it been used earlier the result might have been more satisfactory.

Case 1. (Drs. Edwards and Rountree.)

Mrs. B., white, age 33, married, had three children; was eight and a half months pregnant. While apparently in good health, was seized with a shaking chill, lasting an hour and a half, attended by severe pain under the right breast and scapula. Pain intensified on deep inspiration. Three hours later I saw her. Found temperature 101, pulse 96, respiration 28, great pain, and aggravating cough. I administered a hypodermic injection of morphine and atropine, followed in an hour with five grains of calomel. Hot turpentine stupes were also used. Next morning her condition was unchanged. Ordered strychnine, 1-60th grain, and half an ounce of whisky, with a glass of sweet milk every three hours. Twelve hours later was hastily summoned, and twenty minutes after arriving delivered her of a child. I remained two hours longer, and left her fairly comfortable. On the morning of the third day I found her suffering no pain, but growing weaker. Temperature was 101½, pulse 120, respiration 30, cough very annoying, and the characteristic brick-dust sputum.

Ordered strychnine increased to 1-30th, whisky to one ounce. Also, gave five grains of Dover's powder for cough. At 3 p. m. I called again, and found her in a semi-comatose condition, and suffering from œdema of the lungs. I gave a hypodermic of strychnine, nitroglycerin, and digitalis, and also whisky hypodermically. Many dry cups were applied. One hour later hypodermoclysis was resorted to, but proved useless, as the patient died about 4 p. m.

Case 2. (Drs. Edwards and Rountree.)

Mrs. M., white, age 35, married, has two children, is seven months pregnant, and apparently in good physical condition. She was suddenly seized with light chill and vomiting. I was called on the second day of her

illness. Found temperature 103, pulse 140, full and bounding, and respiration 24. There was pain in the left side, and cough with rusty sputum. Diagnosis, croupous pneumonia. The treatment ordered was as follows:

Calomel and soda, two grains in broken doses. Aconite, gelsemium, and spts. ether, nit. every three hours, until temperature fell to 100. On the third day the aconite was discontinued. One-sixtieth grain of strychnine with champagne was given, with milk, every three hours.

On the night of the third day labor pains came on, and patient was put under the influence of morphine, and kept in that condition for three days, during which time jaundice, retention of urine, and labored respiration developed. Small doses of calomel were given, frequently, until bowels acted. The urine was drawn three times a day. Aromatic spirits of ammonia in one ounce doses every four hours was administered, and dry cups applied to the chest. Whisky and milk were continued. Crisis came on the night of the seventh day of illness, after which the patient made an uninterrupted recovery.

Case 3. (Dr. Wynne.)

Mrs. S., white, 24 years of age, in fairly good health when taken ill. On February 17th, Dr. Wynne was called at 8 a. m. Patient complained of pain in right side. Found pulse 108, temperature 102. Cough painful and suppressed. Found dullness over right lung. Had not menstruated since the birth of her first child, thirteen months previous to date. Dr. Wynne decided that she was pregnant. February 18th, there was bronchial breathing and bronchophony in upper lobe of right lung. Had given calomel and quinine the preceding day. Prescribed heroin 1-12th gr., strychnine, 1-30th with syr. wild cherry, every three hours. Also liquor ammoniæ acetatis and aromatic spirits of ammonia, each half a teaspoonful every three hours.

Patient did very well, pulse ranging from 110 to 116, temperature 101 to 102½, until February 22d, at 8 a. m. She then complained of pains at intervals in the pelvic region. At 9 she had a slight hemorrhage, and the pains were not so severe. At 1 p. m. Dr. Wynne was called again. He found she had expelled a fœtus

of about five months' development. The placenta was retained, but there was no hæmorrhage. Word was left that if bleeding occurred a doctor was to be summoned immediately. Hæmorrhage set in, but it was some time before a doctor could be found. Meantime she had lost an enormous quantity of blood, much more than she could spare, and with the assistance of Dr. Clark the vagina was well tamponed. Her pulse was now about 160, and hardly perceptible at the wrist. As soon as possible one pint and a half of normal saline solution was administered by hypodermoclysis. A slight improvement was visible at once, but still the case seemed hopeless. At 6 a. m. there was still some improvement in the pulse. At 12 m. tampon and placenta had been expelled. There was no further hæmorrhage, and patient steadily improved. On the 28th, pulse was 120, and temperature normal. She had an uninterrupted recovery, except an abcess at the site of the hypodermoclysis. This was attributed to imperfect cleansing of the skin in the hurried emergency.

Case 4. (Dr. Clark.)

Mattie B., colored, age about 30, was confined, and on following day had a very severe chill. About three days later I saw the case, and found as follows: Temperature 102½, pulse 110, respiration 30. There was complete consolidation of the lower lobe of the right lung. The pneumonia ran a typical course, and on the ninth day she had her crisis; at least her temperature dropped to nearly normal, on which date I was dismissed. About three days later I was called again, when she presented the same symptoms as before, except that the consolidation was on the other side.

The second attack also ran its course in six days, at which time she had a second crisis, and entered upon an uninterrupted convalescence.

DISCUSSION.

Dr. R. M. Cunningham: I desire to emphasize the good effects of hypodermoclysis in croupous pneumonia. The occasion of my first resorting to this remedy was in cases of pneumonia attended by profound shock. An epidemic of croupous pneumonia prevailed several years ago at Pratt Mines that was attended by great fatality, some patients dying in twenty-four hours. It

was in that epidemic that I resorted to this remedy, and, as I believe, with good effect. I urge, therefore, that in a serious case of pneumonia hypodermoclysis be given a trial.

ANÆSTHESIA AND ANÆSTHETICS.

By Samuel Aydelotte Billing, M. D., Montgomery.
Member of the Medical Association of the State of Alabama.

The subject chosen for consideration has, doubtless, been repeatedly discussed by every medical organization in the civilized world, but as it is one of the most important problems that comes before the surgeon, I feel that a few remarks thereon will be in order.

It may be said, without exaggeration, that in the majority of the operations daily performed, the life of the patient is to a greater extent in the hands of the anæsthetizer than in those of the surgeon.

The two general anæsthetics most commonly employed, namely, chloroform and ether, will first be considered.

To say that either is safer as an anæsthetic than the other would be fallacious, although all things being considered, the consensus of opinion seems to point towards ether as the safer. It is certainly so as far as death upon the table is concerned. If a patient is anæsthetized with chloroform during an operation, and comes from under its influence safely, we can usually set our minds at rest, as far as the after-effects are concerned. But where ether is administered, this is impossible, for, we have in the majority of cases nausea or vomiting to a greater extent than after chloroform.

Although this symptom rarely results fatally, yet, it often becomes very distressing, and sometimes seriously retards the reaction of the patient from the shock of the operation.

Moreover, after ether we have to fear broncho-pneumonia and other less dangerous pulmonary complications, such as acute bronchitis, etc. These pulmonary complications are particularly apt to occur in the very young and the very aged, and, it is useless to add, in every one suffering from lung troubles. Again, we may have acute congestion of the kidneys, associated with suppression of urine, which often results fatally, especially, if superimposed upon a preëxisting kidney trouble.

The majority of physicians are entirely too prone to fall into a routine habit of giving one of these anæsthetics only, believing it the safer in every case. Now, this proposition is as absurd as it is narrow and fallacious, to say nothing of the unfair treatment a patient is subjected to by those who follow this plan. Each patient coming before the surgeon should be considered separately, and, after all the points have been considered, the anæsthetic should be chosen which best suits that particular case.

The age, habits, and temperament of the patient should be taken into consideration, and should receive nearly as much attention as the examination of the lungs, heart, and kidneys. Of course, a surgeon will often find a patient on whom an operation is unavoidable, and who presents symptoms contradicting the administration both of chloroform and ether. Then, the common sense of the surgeon must guide his judgment, and he must choose the less of the two evils. Generally speaking, all things being equal, chloroform is the better anæsthetic in the very young and very aged; and the same applies to alcoholics. In high strung, nervous, temperaments, in which there is apt to be some neurotic cardiac disturbance, ether is the safer. Although, at first, it may be harder on this class of patients, because they are usually anxious and frightened, and the sensation of suffocation generally experienced at the beginning of the administration of ether may increase the anxiety and fear; yet, by the hypodermic administration of morphia gr. $\frac{1}{4}$ with atropia 1-150, fifteen or twenty minutes before the anæsthetic is begun, these symptoms will be alleviated, to a great extent.

It is not in the cases suffering from chronic cardiac lesions that we have sudden deaths resulting from the

administration of chloroform, for, in these cases chloroform is rarely, if ever, given. It is the nervous, irritable, heart that is apt to succumb.

The technical details of the administration of these anæsthetics will not be given. There are one or two devices, however, which, if properly used, will add materially to the comfort of the patient. Recently the practice of first putting a patient under the influence of nitrous oxide gas and then changing to ether, has come into great favor, and deservedly so.

It has a great many advantages, and the only disadvantage I can see is the inability in emergency cases to have the apparatus always at hand. The patient yields very readily to the influence of the gas, and we thus avoid the violent struggling that so often occurs in the administration of ether. Then, again, the quantity of ether consumed is greatly decreased, and I have found by my own observations, both during my hospital service and since I have been in practice, that the amount of nausea and vomiting after the administration of ether is proportionate to the amount of ether consumed. As before observed, the administration of morphine and atropia before the anæsthetic is a good plan to follow, whether giving chloroform or ether. It quiets the patient, relieves his anxiety, and he yields more readily to the influence of the anæsthetic. It causes the bronchorrhœa, so often troublesome during the administration of ether, to be very much decreased, or entirely prevented. It also helps the patient to withstand the shock of the operation, and to recover more quickly.

Of the other anæsthetics used, I will say but a word.

Nitrous oxide gas, when used alone, is applicable only to operations that can be done in a few minutes.

The local anæsthetics, such as cocaine, eucaine, methyl, and ethyl chloride, are applicable only to a limited class of cases. When a local anæsthetic can be used, I think, in most instances, the best results will be obtained from the use of Schleich's fluid, as modified by Dr. John A. Wyeth. There are three solutions, the strong, the normal, and the weak.

I have obtained the best results from the use of the strong. By injecting this under the skin, especially where there is a good deal of loose cellular tissue, an amount of anæsthesia is produced to allow operations

of considerable moment. The formula for the strong solution is as follows:

Cocaine Hydrochl.....gr. iii.
Morphiæ Hydrochol.....gr. ⅓.
Sodium Chloride.....gr. iii.

Dissolve in three and a half ounces of either distilled water or saturated solution of boric acid. Add of carbolic acid one-tenth of a minim. The normal solution contains of cocaine a grain and a half. The weak solution contains of cocaine one-sixth of a grain, morphine one-twelfth of grain. Recently, much has been said about the production of anæsthesia by the subarachnoidal injection of a cocaine solution into the lumbar region of the spinal cord. I determined to test its efficacy upon the first opportunity. About two weeks ago a negro man had the great toe and the one adjoining it crushed by a wagon. His age was 49, physical condition splendid. His two toes had to be amputated, so I determined to try this new method of anæsthesia. I injected ten minims of a sterilized two per cent. solution of cocaine, and during the operation the patient experienced no pain whatever. But about twenty minutes after the cocaine was injected the patient began to vomit, and quickly went into a condition of profound prostration. His pulse was very feeble, 140 to the minute, and remained that way for several hours. After about three hours he began slowly to react; but the nausea and vomiting continued for nearly twenty-four hours longer. A few hours after the operation the patient began to complain of severe headache, which lasted for several days, except when he was under the influence of some anodyne.

It would not be just to condemn this method on account of my one experience, but taking into consideration the lack of knowledge concerning its remote effects, and the rarity of any mortality from ether or chloroform, in competent hands, it would appear unwise to abandon the old and tried anæsthetics for the new, untried, and painful process, until much more certainty attends it.

DISCUSSION.

Dr. H. A. Moody: I feel a great deal of interest in this subject, and think one of the most important steps

in an operation, is the administration of the anæsthetic, the life of the patient being more in the hands of the anæsthetizer than in those of the operator. Of late years I have been in the habit of giving chloroform, and after the patient is under its influence, I give ether. I wish the essayist had said something about the administration of chloroform. Several times I have had to discontinue giving chloroform and resuscitate the patient, this was when the chloroform was dropped, drop at a time. On the other hand, I have administered chloroform to our soldiers during the war for the most severe operations, and we never looked for an accident. Experience, as well as science, plays an important part in the administration of anæsthetics.

REMARKS ON THE ADMINISTRATION OF AN ÆSTHETICS, WITH SPECIAL REFERENCE TO THE TECHNIQUE OF CHLOROFORM ADMINISTRATION.

By B. B. Rogan, M. D., Selma.
Member of the Medical Association of the State of Alabama.

The physiological action of anæsthetics and the technique of their administration have been so thoroughly studied, and the induction of anæsthesia is of such frequent occurrence in the experience of every physician, that it may appear to be a useless repetition of facts with which we all are perfectly familiar, to present a paper on this subject. However, it is by constant repetition that important details of technique become fixed in our minds. Moreover, in this paper I propose to confine my remarks mainly to the relative advantages and disadvantages of the two most commonly used anæsthetics: chloroform and ether. I cannot avoid the conviction that many of us are prone to look upon

the administration of anæsthetics as a minor procedure, requiring no special skill. Indeed, the small amount of space devoted to this subject in most of the text books on surgery would indicate that this opinion is shared by some authorities.

I desire to make a plea for a more general recognition of the importance and responsibility of the role played by the anæsthetist. In this connection, I cannot do better than to quote from a recent writer in the *Journal of the American Medical Association,* as follows: "The greatest among us does not lower his dignity when he places the patient on the confines of death, safely holds him there, dead to pain, whilst the surgeon wields his knife, and then restores him to life."

If a physician is to take an anæsthetic, he is not likely to choose a hospital nurse or a first year student to administer it to him. Are not our patients entitltd to the same consideration?

It is impossible for the surgeon to do justice to his patient if he has no confidence in his anæsthetist, and is forced to devote part of his attention to the anæsthesia, as well to the operation.

In regard to the relative safety of chloroform, as compared to other anæsthetics, especially its principal rival, ether, I am aware of the fact that statistics usually give ether the advantage. Notwithstanding this fact, my experience with both agents, extending over a period of five years, has led me to form a decided preference for chloroform, when properly administered. Statistics, as you all know, are often very misleading, and cannot always be accepted without taking into consideration other factors than the bare figures. In the first place, there is a considerable proportion of deaths following the administration of ether, occurring at a greater or less length of time from the period of administration, but, nevertheless, directly attributable to it. These deaths are rarely ever charged up against the anæsthetic; on the other hand, when death does occur from chloroform narcosis it almost always takes place on the operating table. In the second place, many patients are subjected to chloroform narcosis because of certain contraindications to the use of ether. When we see bad results following the administration of chloroform, it is manifestly unjust to condemn it

as being the more dangerous anæsthetic, for it must be evident to anyone that a patient who is a bad subject for ether narcosis is a bad subject for chloroform or any other anæsthetic. The statistics of Gurlt show 11,669 ether administrations, with two deaths and 8 subsequently, but clearly attributable to it, giving one (1) death in 1,167 cases; and 33,083 chloroform administrations, with sixteen (16) deaths, and two (2) afterward, attributable to the anæsthetic, giving one (1) death in 2,647 cases. It will be seen that viewed in this light, chloroform makes decidedly the better showing. Nussbaum administered chloroform 15,000 times without a death. Billroth had the first fatal case after 12,500 administrations. McEwen, of Glasgow, reports nearly 10,000 administrations, with one death; Sir George McLeod, 15,000, with one death, and Buchanan 9,000, with one death, making an average of one death in 11,000 for the three Scotch surgeons, a remarkably low mortality, lower than any I have been able to find reported for ether. Parker claims that this low mortality in Scotland from chloroform is due to the fact that this agent is used in that country almost exclusively, consequently the Scotch surgeons being more familiar with its action, use it fearlessly. My experience and observation have long since led me to the conclusion that chloroform, in the hands of competent anæsthetists, is just as safe as ether, if not safer, and is certainly the most efficient anæsthetic we have at our command. This opinion is sustained by the statistics quoted above. I believe, however, that it requires more experience for one to become proficient in the administration of this agent than in the administration of ether. Dr. A. S. Mensfelde, in a splendid article on this subject in the *Journal* of The American Medical Association, (April 14th, 1900), says: "You will allow that I am cognizant of statistics which make the danger of chloroform one (1) death to every 1,500 inhalations; also, that chloroform is supposed to be five times more dangerous than ether, it certainly is that many times more efficacious as an anæsthetic." The same writer does not believe that ether ever induces complete narcosis unless asphyxia enters as a factor in its production.

Dr. John A. Wyeth, who formerly used ether almost

exclusively, now uses chloroform in about 75 per cent. of his cases. His reason for this is not only the great irritation of the respiratory tract caused by ether, but that in a certain proportion of cases, especially in alcoholics, it is extremely difficult and often impossible to produce complete relaxation.

There are many objections to ether not possessed by chloroform. First among these may be mentioned: Its slowness of action, and the violent stage of excitement nearly always incident to its use. This stage of excitement can always be avoided with chloroform, if the anæsthetist understands his business.

Perhaps the most serious objection to ether is the large amount required to induce and maintain, for any considerable length of time, narcosis. With the most approved pattern of inhaler, and administered by the most experienced anæsthetist, four to six ounces per hour is the amount necessary to maintain narcosis. With chloroform, from six drams to one ounce per hour is the amount necessary, and I have often kept patients narcotized for an hour with even less. It is the elimination of this large amount of irritating material from the system, the burden of which falls on the kidneys, that produces such serious results following ether administration in patients with structural impairment of the kidneys. Dr. Robert Coleman Kemp, in a series of experiments, published in the New York *Medical Journal,* has shown that ether can hardly be given without causing some degree of renal irritation.

Other disagreeable properties of ether are its slowness of action, the great irritability of the respiratory tract, the severe and persistent after-nausea, the profuse bronchial and salivary secretions which it produces, and, frequently, the persistent muscular rigidity which it causes cannot be overcome, and its inflammability renders it dangerous to bring a lamp or cautery point within five feet of the mask. The inhalation of ether, as is well known, is sometimes followed by pneumonia. One of the theories advanced as to how this is produced ascribes it to the profuse bronchial and salivary secretion formed during the narcosis, which is churned backward and forward in the pharynx. This secretion, in addition to forming a mechanical obstruc-

tion to respiration, and depriving the patient of the necessary amount of oxygen, comes in contact with the micro-organisms which inhabit the pharynx, often including the pneumococcus. If this substance be aspirated into the lungs, so-called "ether pneumonia" may result. Having given my reasons for preferring chloroform to ether as an anæsthetic, a few words in regard to the technique of chloroform administration may not be amiss.

The patient should always receive a hypodermic injection of ¼ grain morphine and 1-120 of atropia about one hour before the administration is to be commenced. This serves to quiet the patient, and allay his fears, which are very desirable objects to attain, as some authorities hold that sudden death in the early stage of narcosis has been known to result from an inhibitory action of the heart, due to the condition of terror often present in patients at this time. Moreover, by the time the anæsthetic is begun, the patient is already partially narcotized from the morphine, so that he goes under its influence more quickly. The drop method is the most satisfactory manner in which to administer chloroform, as, by this method, we secure narcosis with the least possible amount of the anæsthetic. The administration is begun by dropping the chloroform from a glass stoppered drop bottle on an Esmarch mask, held about two inches from the patient's face. For the first minute or two the anæsthetic should be dropped at regular intervals of about two seconds. The mask is gradually brought closer to the face, until it is finally brought in contact with it, and the anæsthetic is increased to about one drop a second. After the administration is begun the anæsthetic should be dropped continuously without interruption from any cause. After the patient is completely anæsthetized, the chloroform may be dropped at the rate of one drop about every three seconds. By this method a patient may be anæsthetized in from five to ten minutes, and it will scarcely ever require over two drachms of chloroform. Usually about one drachm is sufficient.

I am aware of the fact that all the authorities recognize a more or less violent stage of excitement during the first stage of chloroform narcosis. I insist that by following the method above described, and by the em-

ployment of a little tact on the part of the anæsthetist, this stage can be avoided, the patient passing quietly and peacefully under the influence of the anæsthetic. If the patient tries to push the mask away, let him do so, but immediately place it over his face again. If he shows any signs of beginning to struggle, do not try to restrain his movements, but speak a few reassuring words to him, and tell him that he takes it splendidly, or something of that kind. There is no doubt of the influence of suggestion during this state. Make the patient believe that he is taking the anæsthetic beautifully, and he will almost certainly do so.

It is, of course, unnecessary to emphasize the fact that the anæsthetist should give his entire attention to the patient from the beginning to the end of the operation. I have recently adopted the ether chart, devised by Dr. Cushing of Johns Hopkins Hospital. This is nothing more than a chart very similar to the ordinary temperature chart for recording the pulse and respiration at intervals of five minutes during the operation. It undoubtedly stimulates the anæsthetist to give closer attention to his patient, and he can inform the operator, at any time, as to the condition of the patient.

I believe that nothing so trains a person to become skilled in the administration of anæsthetics as the routine employment of these charts.

COCAINE ANÆSTHESIA BY LUMBAR PUNCTURE.

By Dr. S. G. Gay, Selma.
Vice-President and Senior Counsellor of the Medical Association of the State of Alabama.

A few weeks ago the President of this Association (Dr. Cunnigham) was on a visit to this city, and, in a conversation with him the subject of cocaine anæsthesia by lumbar puncture came up. He insisted that I

would prepare something for this meeting on that subject. In compliance with his request I will endeavor to present the subject, but beg to say that my notes have been very hurriedly made.

One who has never been vice-president of this Association, and, at the same time, Chairman of the Committee of Arrangements for a meeting, can appreciate, even dimly, how much of his time is absorbed by the work that falls to his lot. Add to this considerable and exacting professional duties, and you may be able to form some idea of my situation for the past few weeks, and, if so, I am sure you will excuse the inadequacy of my presentation of this subject.

Puncture of the spinal column for injecting cocaine has been made in several regions, but the conclusion has been reached that the lumbar region is the best. In order to perform the operation, have the patient to sit astride of a straight chair, with his face to the back of the chair, and lean forward. Draw an imaginary line across the back from the crest of one ilium to that of the other, which line wall pass across the spinous process of the fourth lumbar vertebra, and indicate the point at which the injection is to be made.

In order to quiet apprehension on the part of the patient, as well as to render the lumbar puncture painless, first inject a drop or two of cocaine into and underneath the skin, giving assurance that this will cause no pain.

You will find this good practice, for, if you attempt to plunge the needle into the spinal canal without having cocainized the surface, your patient is liable to become nervous, and to embarrass the procedure.

In undertaking this operation one should be as painstaking in sterilizing the syringe, needle, hands, instruments, and seat of puncture, as he would be in preparing for an abdominal section, as the greatest danger lies in the possibility of infecting the spinal canal. In regard to this danger, I quote from a recent article on this subject:

"The use of this procedure must not be undertaken by any surgeon without the most careful sterilization of the fluid to be injected, and the most scrupulous cleansing of the surface of the back, all about the region where the injection is to be made. The slightest deviation from the most rigid antiseptic precautions,

when invading such an important vital center as the spinal cord, is criminal."

I will now submit for your consideration the bedside notes, made mostly by the nurses in attendance, of several cases in which I have used cocaine by lumbar puncture as the anæsthetic for operations.

Case 1.—In July, 1900, I did a double ovariotomy on a colored woman, aged 27. A few days afterward, I went to Chicago, leaving the patient under charge of Dr. B. B. Rogan. On my return, I found that there was a deep stitch abcess, resulting in the formation of an extensive sinus beneath the recti muscles. In dealing with this case I determined to use spinal cocainization.

On September 8th, 1900, I dilated and curetted this sinus, under spinal anæsthesia.

At 11:07 injection of cocaine into the lumbar region was begun. At 11:08 injection finished. (I will say the time occupied by this procedure has been from 30 to 60 second). At 11:15 dilatation commenced with a uterine dilator. After dilatation, the sinus was thoroughly curetted, without any pain. At 11:18 pulse 120, very weak. At 11:19 nausea and slight vomiting; 11:20, profuse vomiting; 11:27, inserted drainage tube; 11:40, pulse 112, with good volume; patient expressed herself as feeling all right; walked from the table to the bed. At 3 p. m. temperature 102°, pulse 100; complained of severe headache, and vomiting; at 4:30 temperature 104 2-5°; at 6:15 temperature 103 1-5°; at 7:30 temperature 102 3-5°; at 2:30 a. m. temperature 102°, with pulse 100. At 7 next morning, temperature 101 3-5°. At 12 o'clock it went to 102 4-5°. After that time the temperature declined, and the patient rallied from the cocaine. I will state that this curettment was not successful, and in a few weeks I resorted to it again in this case. The temperature this time went to 101½°.

Case 2 was a woman on whom I used spinal cocainization for a series of operations; first, dilating cervix and curetting uterus; second, repairing laceration of cervix; third, repairing perineum.

At 10:40 injection of cocaine under skin.

At 10:50 injection of cocaine into spinal canal.

At 10:58 pulse 80.
At 11:01 began curettment.
At 11:05 pulse regular, no pain whatever.
At 11:06 respiration 20.
At 11:10 patient drowsy.
At 11:28 cervix operation completed.
At 11:30 perineal operation begun.
At 11:35 complained of pain in lower abdominal re-region.
At 11:40 operation completed, patient felt all right.
At 11:45 patient walked from operating room to bed; no nausea during the operation.
At 11:55 pulse 80, respiration 20.
At 2:20 temperature 99 3-5°; pulse 70; complained of slight soreness through hips.
At 5:30 temperature 101°, pulse 70, respiration 18; had not complained of pain.
At 9:00 temperature 102°, pulse 76, respiration 20; some soreness.
At midnight, sleeping at intervals.
At 3 a. m., temperature 102°, pulse 67, respiration 18; quiet and in no pain.
At 6 a. m., temperature 99 4-5°, pulse 66, respiration 18. On the afternoon of the second day, temperature at 6 p. m. 100 3-5°. After this the patient convalesced.

Case 3. The next case was one in which I used the cocaine in labor, and so far as I knew, at that time, it had never been used in this country for this purpose. A few days after using it on this case, I saw a report by Dr. S. Marx, of New York, of 42 cases of labor, in which he had employed this method of anæsthesia.

September 27th, at 1:30, second stage of labor had commenced, with presentation of the right shoulder. At 2:30 cocaine was injected underneath the skin; at 2:41 in the spinal canal. At 2:47 patient said feet and legs felt dead. At 2:48 delivery was commenced; complained of nausea and vomiting. Introduced my hand, got hold of leg, turned and delivered. At 3:11 delivery complete, child being dead. After the delivery, the woman said she had experienced no pain whatever, the only uncomfortable sensation experienced was while I was trying to get hold of the feet of the child, which was caused by my pushing the uterus upward

and interfering with respiration. She made a rapid recovery. Temperature at 6:30 p. m. was 100.4°; was able to return to her work in about ten days after delivery.

Case 4.—My next case was on October 13, colored woman, used cocaine anæsthesia by spinal method for the removal of tuberculous glands from inguinal region. At 10:40 injection of cocaine begun; 10:41, completed; 10:50, fistulous tract probed; 10:52, incision made; 10:55, nauseated. This patient complained of some pain when dissecting was being done in the neighborhood of the pubes. The innominate bone was found to be involved, and I introduced drainage tube.

Case 5. Next case, colored male, October 27. History of tuberculosis and syphilis; had close stricture of the rectum, could not even pass gas. In this case I injected the cocaine and dilated sphincter muscle without pain. This patient was lifted back to bed, and made permanent recovery. I am informed that he died from tuberculosis within the last ten days.

Case 6. The next case was a negro woman, aged 50. The operation was vaginal hysterectomy. I was 40 seconds in injecting the cocaine. At 10:45 the injection was finished. Operation commenced at 10:58; pulse 92. Nervous after being placed on table; patient bathed in perspiration, later, pulse 72. At 11:15 patient complained of pain when the uterus was drawn down. At 11:20 no pain; 11:37, nausea; 11:57, uterus removed. After removal of uterus patient had a little hemorrhage, and became nervous; gave a general anæsthetic until I could get the hemorrhage controlled. This patient suffered from shock. At 2 p. m., pulse 48; at 3, pulse 38, at which time saline solution was given subcutaneously, and hot applications applied, which caused her to rally. At 9 o'clock she had completely rallied; temperature 101 3-5°. In 24 hours she was free from fever.

Case 7. The next case was one of stricture of deep urethra. I examined it four or five weeks before, at which time patient refused the operation. November 24, I was called to his home and requested to do something to relieve him. I had him to go to the hospital that afternoon; injected cocaine in his spinal canal, and had him get on the table; injected urethral canal with sweet

oil, and succeeded in passing a filiform at first attempt. In a half hour's time he got up and went home in a hack.

Case 8. The last case was operated upon on March 27, 1901, a negro man who had tuberculosis of inguinal glands. Used cocaine in 30 seconds; 10.51 patient had no pain whatever; had some coughing; 10.56 involuntary expulsion of fœces. When operation was completed patient was able to walk to his bed. He had the usual nausea and vomiting and headache that had occurred in all of my cases.

I do not believe the use of cocaine in the spinal canal will be very popular. You have to be extremely careful of the technique. I do not believe that any man, unless he has had considerable experience, should attempt it.

I was asked to bring this subject before the Association so that it might be discussed. I hope the members will discuss it freely.

In answer to several questions, Dr. Gay said:

I injected the cocaine in the same region in all of my cases, and regard that as the best and safest region. I believe that Dr. Touffoe, who brought this method before the profession, has given up all other locations, except this one, and uses a two per cent. solution of cocaine. My solution had been prepared by a competent chemist here, (Dr. Mitchell, at Cawthon & Colemans); it was prepared by sterilizing the water, a fresh solution being made each time. The solution was not sterilized after the cocaine was put in it.

DISCUSSION.

Dr. E. T. Camp:—You do not attempt to inject the cocaine, I suppose, until the spinal fluid has appeared?

Do you use any particular kind of needle?

Dr. Gay:—I do not believe it is necessary to allow any great amount of the fluid to pass away. You will lose five or six drops while you are taking up your syringe. The needle is like the one that will be found in your pocket case. The time the anæsthesia lasts is from thirty minutes to one hour and fifteen minutes. It

lasted long enough for me to perform any operation I tried.

In reply to a question as to what effect, in the case of labor, the cocaine had on the labor and the contraction of the uterus?

Dr. Gay said: If anything, the uterus contracted firmer than usual on my hand when introduced, and after the delivery the uterus contracted down perfectly. The patient had some after pains.

Dr. Rogers:—Did you notice any effect on the pupils.

Dr. Gay:—I did not notice any effect on the pupils. The anæsthesia was sufficient for any operation under the diaphram.

Dr. E. C. Parker: I prefer the expression, spinal analgesia to that of anæsthesia, for, it is a true analgesia. As Americans, we should be proud to know that it was an American who suggested the use of cocaine in the spinal canal. This credit is due to Dr. J. Leonard Corning who has done more to advance the use of cocaine than any one else. We are all acquainted with Corning's method of applying cocaine. Dr. Corning, in 1885, used cocaine in the spinal canal of the lower animals, but it was Touffoe who revived these suggestions, and, in 1889, first used cocaine in the spinal canal of a human being.

I have just followed Dr. Matas, of New Orleans, in a series of seventeen cases of spinal cocainization. His method is as follows: He makes a fresh solution in the room by putting the desired percentage of cocaine into sterile water, in a test tube, then, over an alcohol lamp or burner, he brings the solution to the boiling point, then removes, and repeats this six consecutive times. His method of introducing is as follows:

With a hypodermic syringe he introduces cocaine into the spinal muscles, so as to render introduction of the needle into the spinal canal painless. He allows the spinal fluid to drop out for about as many drops as he expects to introduce drops of cocaine solution; he thinks by so doing he avoids to some extent disagreeable headache, nausea, and vomiting. Dr. Parham, of New Orleans, had the following experience: He had injected 1-5 of a grain of cocaine into the spinal canal and at the expiration of 30 minutes there was no evidence

of analgesia. The patient was sent back to the ward (for there they do not give a general anæsthetic immediately after using cocaine). In about two hours it was discovered in the ward that the patient's lower extremities were completely devoid of pain; the patient was returned to the operating room and the operation performed without pain.

The only objection to this method of analgesia is that a break in your chain of asepsis means so much to your patient. The maximum dose used by Dr. Matas is 1-5 of a grain.

COUNTY BOARDS OF EXAMINERS.

[Summary of the Rules Governing Them.]

For the guidance of county boards of examiners in this State the following summary of rules, and of suggestions appertaining thereto, is here published, it having been compiled from the Book of the Rules and from several volumes of Transactions of the State Medical Association, by the State Health Officer.

WHO ARE SUBJECT TO EXAMINATION?

1. All persons who propose to practice medicine in this State must be examined by an authorized board of examiners.

There are no exceptions to this rule. It matters not how many diplomas, or certificates of qualification, obtained elsewhere, a person may possess, they do not exempt him from examination.

2. A county board of examiners cannot legally examine an applicant for license unless he be a graduate of a reputable medical college, and presents a diploma in evidence thereof.

An under-graduate can be examined, but he must apply to the State Board of Examiners.

WHEN A PHYSICIAN PROPOSES TO LOCATE IN ANY COUNTY OF THE STATE WHAT RULES MUST BE OBSERVED.

1. If the new comer holds a certificate of qualification, issued by some other county board within the

State, or by the State Board, he should promptly call on the chairman, or secretary, of the board of examiners for the county, and exhibit his certificate.

If the certificate is in regular form and there is no reason to doubt its genuineness, the chairman, or secretary, called upon, should officially endorse the certificate, that is, should write his name and title on the back.

The new comer should then present the certificate at the office of the judge of probate to be recorded.

This done, the law has been complied with, and the new comer is entitled to the courtesies of the profession and of the people.

However well-known the new comer may be, all of these steps should be punctiliously observed, since, in no other way can legal practitioners be certainly protected against doubt and suspicion, and illegal ones exposed.

A physician who removes from one county to the adjoining one, although it be only a few miles from his former residence, should promptly and rigidly observe these rules.

2. If the new comer does not hold a certificate of qualification, issued by an authorized board of medical examiners of this State, and is a graduate of a reputable medical college, he should, at once, apply in writing to the board of examiners of the county for an examination, unless he prefers to apply to the State Board for such examination.

Should he decide upon the latter course, he must forthwith proceed to Montgomery and make application for examination at the office of the State Board, in the Capitol.

3. Until the examination has been completed, either by the County, or State, Board, and the result declared, the new comer has no right to engage in the practice of medicine, not even to take charge of a single case of disease.

4. Should the new comer be ignorant of the law, or should he, from any cause, not make application for examination, the president or secretary of the county board should notify him in writing of the requirements of the law, and inform him that the board stands ready to undertake his examination.

This course should always be promptly pursued, as it is bad policy to wait until the new comer has entered upon practice before raising the issue with him.

Should he, after notification, decline to appear for examination, or, should he openly defy the law, proceedings should be forthwith instituted against him as an illegal practitioner.

METHOD OF CONDUCTING AN EXAMINATION.

1. When an examination is to be conducted, official paper should first be ordered from the State Board of Examiners, the order being accompanied by a remittance of two dollars, which sum must be paid by the applicant and is intended to cover the cost of the paper furnished, the cost of the certificate (if granted), the cost of binding the papers and of furnishing a tin case in which the certificate is sent.

With the order for the paper the *name* of the applicant must always be furnished, failure to comply with which is liable to lead to more or less confusion.

2. The board should then provide a supervisor, in the appointment of whom good judgment must be exercised.

3. A supervisor should be intelligent, a fairly good penman, conscientious, and thoroughly trustworthy.

He should also be able to devote sufficient time to the work of supervision as to guarantee that it will be faithfully done.

Generally, a minister, or school teacher, would make a suitable and an efficient supervisor, if his services can be had. Of course, many other persons might answer equally well.

When the board is conducting examinations from year to year, it is best, where it can be done, to arrange with some one person to act as supervisor. He soon becomes trained and proves of great assistance to the board.

The supervisor should be impressed with the importance and responsibility of his position and with the fact that he is placed upon his honor. He should be carefully instructed as to how he is to supervise the examination, and informed that whenever in doubt on any point he should apply to some member of the board for instruction.

One or more members of the board should supervise the supervisor, that is, should, from time to time, call at the place where the examination is being conducted, in

order to see that the rules are understood and are being observed.

Whilst the supervisor is responsible to the board for the proper supervision of an examination, the board itself is responsible to the State Board, and we may also add, to the State, and to the people, for the faithful discharge of the trust committed to it by law, and should see that no incompetent man is granted license to take charge of the lives of the people, when in great peril.

When employed, the supervisor should be informed that he will be expected to act in good faith throughout the examination, and that at the close of it he will be required to sign a certificate, stating that the examination has been fairly conducted, and that during its progress the applicant has not had access to books or other aids.

The appointment of a supervisor is not intended, in the least, to relieve the board of examiners of any part of their responsibility, but, simply, to exempt them from the necessity of watching the applicant whilst he is writing out answers to the questions propounded.

In order to retain more complete control of the supervisor, the chairman, or some other member, of the examining board might receive from the applicant the fee for the examination (ten dollars), and hold it until the examination has been completed and the papers prepared for transmission to the State Board, and then pay it over to the supervisor, provided his work has been faithfully and properly done. This plan would undoubtedly promote promptness and efficiency on the part of supervisors.

If, during the progress of the examination, it should be discovered that the supervisor is not doing his duty, or is permitting unfairness on the part of the applicant, he should be immediately discharged and another and better one put in his place.

The fee of ten dollars, to be paid by the applicant is intended for, and of right belongs to, the supervisor, and not to the board. Indeed, it would be illegal and criminal for the board, or any member thereof, to accept a fee from the applicant.

The fee of ten dollars includes the two dollars which must be forwarded for paper, certificate, tin case, etc.

4. The examination must cover ten branches, namely, chemistry, anatomy, physiology, natural history and

diagnosis of diseases, physical diagnosis, surgery, mechanism of labor, obstetric operations, hygiene, and medical jurisprudence.

Materia-medica and therapeutics, that is the medical treatment of diseases, are intentionally excluded from the list.

In other branches, however, such as surgery, mechanism of labor, and obstetric operations, it is legitimate to ask how operations would be performed and treatment carried out.

The idea is to exclude from the examination materia medica, pure and simple, and the administration of drugs for the treatment of diseases.

5. The branches included in the examination should be assigned to the several members of the board and when an examination is to be conducted they should promptly prepare questions thereon and place them in the hands of the supervisor, charging him to exercise due care that they do not fall into the hands of the applicant, until submitted to him in the regular order of his examination.

Should any member of the board, on account of sickness, absence, procrastination, or other cause, fail to promptly furnish questions on his branches, the applicant should not be kept waiting, but some other member of the board should supply the questions.

6. Before the beginning of the examination, the supervisor should be especially instructed not to submit to the applicant more questions at one time than he can answer before leaving the room. Indeed, the safer plan is for one question at a time to be submitted to the applicant and when he has completed the answer thereto, then, to give him another.

If the applicant should leave the room at any time without having completed the answers to the questions already submitted to him, those unanswered should be withdrawn and others substituted.

7. When the applicant has completed the answers to questions already submitted, and takes a recess, the answers should be withdrawn and he should not be permitted to have access to them again, for the obvious reason that in the meantime he might have consulted books and might desire to amend his answers.

8. When two or more applicants undergo examination at the same time the same questions may be simultaneously submitted to all, provided that the supervision is such as to prevent all communication betwixt the applicants.

In an examination of this kind all applicants should be required to undergo examination upon the various branches at the same time, that is, all should do their work simultaneously.

9. Applicants who are examined at different times should receive different questions, for the obvious reason that one subsequently examined might have ascertained from his predecessor many of the questions that would be given.

10. When an examination has been completed the supervisor should submit the papers to the several examiners for valuation.

After reading each answer on their several branches the examiners should value it, and write with *pen and ink* the valuation on the margin of the paper opposite the last line of the answer.

The scale of valuation ranges from 0 to 100, and in estimating the value of each answer the examiner should be absolutely conscientious.

After the papers have been valued they must then be returned to the supervisor, who must fill out the rating sheets for each branch and the sheet for a final summary.

11. After the supervisor has completed his work the board should, if possible, hold a meeting and look over the papers, to see that no error has been committed and no alteration made in the figures.

If it should be impracticable for the entire board to meet for the purpose of looking over the papers, as many members thereof as possible should examine them and see that they are in proper form, in all respects.

12. When the papers have been completed and put together they should be promptly forwarded to the office of the State Board of Examiners, the supervisor prepaying postage or expressage.

13. When official paper is ordered from the State Board a printed sheet of instructions accompanies the paper, intended to aid the supervisor in many details of his work, not here mentioned.

CHARACTER OF THE QUESTIONS.

1. In propounding questions the members of the board should endeavor to be just, both to the applicant and the people, that is, they should realize that they occupy very important and responsible positions, similar to that of a judge upon the bench in the trial of an important cause involving life itself.

The questions should be such as will fairly and adequately test the knowledge of the applicant. Elementary, trivial, and catch questions should be avoided; also, questions of special difficulty and of but little or no practical importance.

All questions should be clearly and unambiguously stated, and should always *strictly belong to the branch* under which they appear. Applicants sometimes find difficulty in interpreting a question, because it violates one of the rules just stated.

From six to twelve questions on each branch, depending upon their scope, are generally sufficient.

Justice to applicant and justice to the people should be the feeling that dominates the board in conducting an examination.

Since the colleges have increased their terms of study to four years it is to be expected that applicants will show better preparation than formerly, consequently, the boards should put the standard of qualification correspondingly higher.

SECOND EXAMINATIONS AND APPEALS.

1. When an applicant has been unsuccessful before a county board he is not entitled to a second examination by the same or any other county board until after the expiration of twelve months, the idea being that if he has been found incompetent by one board he should devote at least another year to study before demanding another examination.

2. An unsuccessful applicant before a county board, however, has the right of immediate appeal to the State Board, and, if he avails himself of the right, will be granted an entirely new examination, the result of which may be either to confirm or overrule the decision of the county board, depending upon whether it is successful or unsuccessful.

BONA FIDE APPLICATIONS FOR EXAMINATION.

1. When an applicant applies for examination the board should satisfy itself, as far as can be done, that the application is a *bona fide* one, and that the applicant honestly purposes to practice in the county in which he applies for examination.

County boards should not permit themselves to be made use of by dishonest applicants in search of a board whose standard is believed to be lower than that of some others, and with the purpose, when a certificate is obtained, of removing to a county whose board they were unwilling to encounter.

Whilst with every precaution this may not be avoided in every instance, yet no county board, with due pride and self-respect, should permit itself to be openly and obviously imposed upon, in the way mentioned.

Should a board have reason to suspect motives of this sort on the part of an applicant it should either decline to make the examination, or should give the examination such rigidity and scope as to test very thoroughly the knowledge of the applicant, and to convince him that he had not profited by an evasive and disingenuous policy.

UNSUCCESSFUL APPLICANTS AND ILLECAL DOCTORS.

1. When an examination is held and the applicant is unsuccessful he fails to acquire the right of practicing medicine and should not be permitted so to do. If he undertakes it, he should be promptly prosecuted. His resources are: Either to appeal to the State Board, which will grant him a new examination, or wait twelve months and then apply for a second examination by the county board.

The intervening time should, of course, be devoted to further study.

2. An illegal doctor is one who does not hold a certificate of qualification from an authorized board of medical examiners in this State. All doctors, therefore, who do not hold such certificates are illegal.

Theoretically, there should be no illegal doctors in this State, but the enforcement of the law depends upon judges, solicitors, grand and petit juries. It is to be regretted that in some counties these defenders of the law view with mistaken charity its violation, forgetting

that the lives of some of their fellow-citizens may pay the forfeit of their leniency toward illegal doctors. Consequently this class of doctors sometimes succeed in evading the law.

The organized and legal doctors of the county should not cease their efforts to have them prosecuted, and, in the meantime, should deny them all professional and social fellowship. Under no circumstances should a consultation be held with an illegal doctor, and, socially, they should be ostracised. If this penalty is imposed upon them it is believed that very many of them could either be driven from the State, or forced to secure license and thus become legal and reputable.

IRREGULAR DOCTORS.

1. Properly, any doctor who does not hold a certificate of qualification from an authorized board of medical examiners in this State should be deemed an irregular, but, just here, we will apply the term to all those so-called doctors who pursue some other system of practice than that of the regular profession, which would include homeopaths, eclectics, osteopaths, christian scientists, magnetic healers, vitapaths, believers in the electropoise, etc.

How sick people shall be treated can not be regulated by law. Members of the regular profession differ, more or less, in their ideas of treatment. Two regular physicians who graduate at the same college and at the same time, and who own precisely the same books may, within limits, differ as to the treatment of diseases. Treatment lies at the end of investigation of a disease, hence, doctors are liable to reach different conclusions as to the remedies which should be applied, just as judges, lawyers, engineers, teachers, etc., may differ as to the practical application of their several professions.

Inasmuch, therefore, as no absolute standard for the medical treatment of diseases can be fixed, that subject, and, for obvious reasons, materia medica, was eliminated from the schedule of examinations to be held in this State.

It will be conceded that all persons who propose to take charge of the lives of sick people should be made to show before a competent board that they are able to

diagnose diseases and to accurately differentiate one from another. If not made to show this the contemplation of the harm they may do, both by sins of omission and commission, is appalling.

Our law is formulated upon the idea that all persons who propose to assume the responsibility of taking charge of the lives of sick people shall undergo an examination upon anatomy, chemistry, physiology, the natural history and diagnosis of diseases, surgery, the mechanism of labor, etc., without a knowledge of which no man should be permitted to impose upon trusting people, when sick.

This is all that our law demands, and it is certainly a very reasonable demand.

When an applicant passes the examination and obtains a certificate of familiarity with the branches named, it becomes a matter entirely betwixt him and those who choose to patronize him as to how he will treat diseases. If one who has obtained license can satisfy and cure his patients by tickling them on top of the head or on the bottoms of the feet no complaint can be legitimately made by the regular profession or by the authorities of the law. The same principle applies to the practice of all irregulars. If qualified to pass the examination they are at liberty to treat diseases as they think best, provided, their treatment satisfies their patients.

Of course there is a moral aspect of this matter which applies to parents placing the lives of their irresponsible children in the hands of practitioners who pursue absurd systems of practice, but in the discussion of that view of the matter we will not enter now.

When an irregular doctor comes into a community, however absurd his system of practice may be, the members of the regular profession should simply insist that he shall be examined, and show that he can diagnose diseases and distinguish one from another, leaving the question of what he will do for his patients entirely betwixt him and them.

When the people are made to clearly understand the position of the regular profession on this point they will at once see its justice, and will absolve regular physicians from the groundless charge of persecuting irregulars, which it must be conceded enlists much sympathy in their behalf.

An appeal is hereby made to the members of this Association to embrace and proclaim the views herein set forth, as they will not only be creditable to the Association, but will do more to put down absurd systems of practice than any other course that can be pursued.

The next annual meeting of The Medical Association of the State of Alabama will convene in the city of Birmingham on the third Tuesday of April, 1902, and continue for four days.

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